

```
? e au=krieg
Ref  Items  Index-term
E1      4  AU=KRIEFTEWIRTH, M.
E2      1  AU=KRIEFTEWIRTH, MICHAEL
E3     169  AU=KRIEG
E4     374  AU=KRIEG A
E5      84  AU=KRIEG A F
E6      12  AU=KRIEG A H
E7       4  AU=KRIEG A J
E8     556  AU=KRIEG A M
E9     101  AU=KRIEG A.
E10     21  AU=KRIEG A.F.
E11      9  AU=KRIEG A.H.
E12     25  AU=KRIEG A.J.
E13    595  AU=KRIEG A.M.
E14      3  AU=KRIEG A.R.
E15      2  AU=KRIEG A.S.
E16     25  AU=KRIEG ADAM J
E17     30  AU=KRIEG AF
E18      1  AU=KRIEG AGOETTINGEN
E19      6  AU=KRIEG AH
E20     11  AU=KRIEG AJ
E21     16  AU=KRIEG ALEXANDER
E22      4  AU=KRIEG ALEXYS R
E23      1  AU=KRIEG ALOYS
E24     14  AU=KRIEG ALOYSIUS
E25    307  AU=KRIEG AM
Enter PAGE for more
```

```
? s e3-e17, e25
169  AU=KRIEG
374  AU=KRIEG A
84   AU=KRIEG A F
12   AU=KRIEG A H
4    AU=KRIEG A J
556  AU=KRIEG A M
101  AU=KRIEG A.
21   AU=KRIEG A.F.
9    AU=KRIEG A.H.
25   AU=KRIEG A.J.
595  AU=KRIEG A.M.
3    AU=KRIEG A.R.
2    AU=KRIEG A.S.
25   AU=KRIEG ADAM J
30   AU=KRIEG AF
307  AU=KRIEG AM
S1   2317 S E3-E17, E25
```

```
? s s1 and ((CpG or CG or immunostimulatory or nucleotide or oligo?))
>>>W: Unmatched parentheses
>>>E: There is no result
```

```
?
Processing
2317 S1
122745 CPG
76559 CG
29315 IMMUNOSTIMULATORY
2606923 NUCLEOTIDE
2269833 OLIGO?
S2 1350 S S1 AND (CPG OR CG OR IMMUNOSTIMULATORY OR NUCLEOTIDE OR OLIGO?)
```

```

?
? rd
Processing
Processing
>>>W: Duplicate detection is not supported for File 393.
Duplicate detection is not supported for File 391.
Records from unsupported files will be retained in the RD set.
S3      444   RD (UNIQUE ITEMS)

? s s3 and (palindrome or phosphorothioate)
      444   S3
      9434  PALINDROME
      49204 PHOSPHOROTHIOATE
S4      92   S S3 AND (PALINDROME OR PHOSPHOROTHIOATE)

? d s
Set    Items  Description
S1      2317  S E3-E17, E25
S2      1350  S S1 AND (CPG OR CG OR IMMUNOSTIMULATORY OR NUCLEOTIDE OR OLIGO?)
S3      444   RD (unique items)
S4      92   S S3 AND (PALINDROME OR PHOSPHOROTHIOATE)

? e au=steinberg
Ref    Items  Index-term
E1      1     AU=STEINBERG R
E2      573   AU=STEINBERG
E3      1     AU=STEINBERG F
E4      1     AU=STEINBERG , C. E. W.
E5      1     AU=STEINBERG , J.
E6      2     AU=STEINBERG , M. H.
E7      1     AU=STEINBERG , S.
E8      506   AU=STEINBERG A
E9      3     AU=STEINBERG A A
E10     12    AU=STEINBERG A B
E11     3     AU=STEINBERG A C
E12     1593  AU=STEINBERG A D
E13     1     AU=STEINBERG A D;
E14     2     AU=STEINBERG A E
E15     356   AU=STEINBERG A G
E16     11    AU=STEINBERG A H
E17     12    AU=STEINBERG A I
E18     18    AU=STEINBERG A J
E19     1     AU=STEINBERG A L
E20     129   AU=STEINBERG A M
E21     2     AU=STEINBERG A N
E22     2     AU=STEINBERG A O
E23     2     AU=STEINBERG A P
E24     16    AU=STEINBERG A S
E25     11    AU=STEINBERG A W
Enter PAGE for more

? s e2, e8-e25
      573   AU=STEINBERG
      506   AU=STEINBERG A
      3     AU=STEINBERG A A
      12    AU=STEINBERG A B
      3     AU=STEINBERG A C
      1593  AU=STEINBERG A D
      1     AU=STEINBERG A D;
      2     AU=STEINBERG A E
      356   AU=STEINBERG A G
      11    AU=STEINBERG A H
      12    AU=STEINBERG A I

```

```

                                cpgaacggtt.txt
18  AU=STEINBERG A J
1  AU=STEINBERG A L
129 AU=STEINBERG A M
2  AU=STEINBERG A N
2  AU=STEINBERG A O
2  AU=STEINBERG A P
16 AU=STEINBERG A S
11 AU=STEINBERG A W
S5 3253 S E2, E8-E25

? s s5 and (CPG OR CG OR IMMUNOSTIMULATORY OR NUCLEOTIDE OR OLIGO?)
3253 S5
122745 CPG
76559 CG
29315 IMMUNOSTIMULATORY
2606923 NUCLEOTIDE
2269833 OLIGO?
S6 89 S S5 AND (CPG OR CG OR IMMUNOSTIMULATORY OR NUCLEOTIDE OR OLIGO?)

? e e au=klinman
>>>w: = is in the wrong position for expand

? e au=klinman
Ref Items Index-term
E1 1 AU=KLINMAHORM, S.
E2 1 AU=KLINMALEE A.
E3 42 AU=KLINMAN
E4 1 AU=KLINMAN C S
E5 95 AU=KLINMAN D
E6 3 AU=KLINMAN D K
E7 516 AU=KLINMAN D M
E8 1 AU=KLINMAN D M; HOFFMAN S L
E9 5 AU=KLINMAN D R
E10 63 AU=KLINMAN D.
E11 472 AU=KLINMAN D.M.
E12 2 AU=KLINMAN D.R.
E13 3 AU=KLINMAN DA
E14 61 AU=KLINMAN DENNIS
E15 1 AU=KLINMAN DENNIS A
E16 298 AU=KLINMAN DENNIS M
E17 1 AU=KLINMAN DENNIS R
E18 251 AU=KLINMAN DM
E19 1 AU=KLINMAN DN
E20 1 AU=KLINMAN DP
E21 2 AU=KLINMAN DR
E22 5 AU=KLINMAN J
E23 354 AU=KLINMAN J P
E24 10 AU=KLINMAN J. P.
E25 373 AU=KLINMAN J.P.
Enter PAGE for more

? s e3, e14-e21
42 AU=KLINMAN
61 AU=KLINMAN DENNIS
1 AU=KLINMAN DENNIS A
298 AU=KLINMAN DENNIS M
1 AU=KLINMAN DENNIS R
251 AU=KLINMAN DM
1 AU=KLINMAN DN
1 AU=KLINMAN DP
2 AU=KLINMAN DR
S7 658 S E3, E14-E21

```

```

cpgaacgtt.txt
? s s7 and (CPG OR CG OR IMMUNOSTIMULATORY OR NUCLEOTIDE OR OLIGO?)
    658 S7
    122745 CPG
    76559 CG
    29315 IMMUNOSTIMULATORY
    2606923 NUCLEOTIDE
    2269833 OLIGO?
S8 373 S_SZ AND (CPG OR CG OR IMMUNOSTIMULATORY OR NUCLEOTIDE OR OLIGO?)

```

? S AACGTT
S1 256 S AACGTT

```
? s s1 and (lip?)
Processing
Processing
          256      S1
      5876822    LIP?
S2          32    S S1 AND (LIP?)
```

```
? s s1 and (oligonucleotide or antisense or sequence or dinucleotide or
immunostimulatory)
Processing
      256      S1
      500609    OLIGONUCLEOTIDE
      315122    ANTISENSE
      6782267   SEQUENCE
      205908    DINUCLEOTIDE
      30530     IMMUNOSTIMULATORY
      238      S S1 AND (OLIGONUCLEOTIDE OR ANTISENSE OR SEQUENCE OR DINUCLEOTIDE
OR IMMUNOSTIMULATORY)
```

```
? rd
>>>w: Duplicate detection is not supported for File 393.
Duplicate detection is not supported for File 391.
Records from unsupported files will be retained in the RD set.
S4          56 RD (UNIQUE ITEMS)
```

```

7 t s4/3,k/1-54
>>>W: KWIC option is not available in file(s): 399
4/3,k/1 (Item 1 from file: 5) Links
Fulltext available through: STIC Full Text Retrieval Options
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0020635128 Biosis No.: 200800682067
The effects of local DNA sequence on the interaction of ligands with their preferred
binding sites

```

Author: Hampshire Andrew J; Fox Keith R (Reprint)
 Author Address: Univ Southampton, Sch Biol Sci, Bassett Crescent E, Southampton SO16
 7PX, Hants, UK**UK
 Author E-mail Address: k.r.fox@soton.ac.uk
 Journal: Biochimie (Paris) 90 (7) : p 988-998 JUL 2008 2008
 Item Identifier: doi:10.1016/j.biochi.2008.01.001
 ISSN: 0300-9084
 Document Type: Article
 Record Type: Abstract
 Language: English
 The effects of local DNA sequence on the interaction of ligands with their preferred
 binding sites

cpgaacggtt.txt

Abstract: We have examined the effects of local DNA sequence on the interaction of distamycin, Hoechst 33258, echinomycin, actinomycin and mithramycin with their preferred binding sites using a series of DNA fragments that contain every symmetrical hexanucleotide sequence. In several instances we find that the affinity for the ligands' preferred binding sites is... ..yet shows no binding to TTCGAA, TGGCGA and AGCGCT, while the best binding is to AACGTT. The tetranucleotides CCGG and ACGT produce consistently good binding sites, irrespective of the surrounding sequences... ..to all the potential symmetrical hexanucleotides and provide insights into the effects of local DNA sequence on ligand-DNA interactions. (c) 2008 Elsevier Masson SAS. All rights reserved.

4/3,K/2 (Item 2 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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0020364532 Biosis No.: 200800411471

The expression profile of TLR9 mRNA and CpG ODNs immunostimulatory actions in the teleost gilthead seabream points to a major role of lymphocytes

Author: Cuesta A (Reprint); Esteban M A; Meseguer J

Author Address: Univ Murcia, Fac Biol, Dept Cell Biol and Histol, Fish Innate Immune Syst Grp, E-30100 Murcia, Spain**Spain

Author E-mail Address: cuesta.alberto@um.es

Journal: Cellular and Molecular Life Sciences 65 (13): p 2091-2104 JUL 2008 2008

Item Identifier: doi:10.1007/s00018-008-8146-7

ISSN: 1420-682X

Document Type: Article

Record Type: Abstract

Language: English

The expression profile of TLR9 mRNA and CpG ODNs immunostimulatory actions in the teleost gilthead seabream points to a major role of lymphocytes

Abstract: ...cell-source. To conclude, ODNs containing GACGTT, GTCGTT (optimal for mouse and human, respectively) or AACGTT motifs are the most potent inducers of seabream immunity, whilst the involvement of TLR9 is...

DESCRIPTORS:

Miscellaneous Terms: Concept Codes: ...immunostimulatory action

4/3,K/3 (Item 3 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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18218711 Biosis No.: 200500125776

DNA structure constraint is probably a fundamental factor inducing CpG deficiency in bacteria

Author: Wang Yong; Leung Frederick C C (Reprint)

Author Address: Dept Zool, Univ Hong Kong, Hong Kong, China**China

Author E-mail Address: fcleung@hku.hk

Journal: Bioinformatics (Oxford) 20 (18): p 3336-3345 December 12, 2004 2004

Medium: print

ISSN: 1367-4803

Document Type: Article

Record Type: Abstract

Language: English

Abstract: Motivation: It has been speculated that CpG dinucleotide deficiency in genomes is a consequence of DNA methylation. However, this hypothesis does not adequately... ..the TTCGAA pattern, was under represented in low GC content

cpgaacggtt.txt

bacterial genomes regardless of CpG dinucleotide level. This is in contrast to the AACGTT pattern, indicating that the counterselection is context-dependent. Further study discovered nine underrepresented patterns that... ..proposed for the strong correlation between GC content and CpG deficiency. The result of random sequence simulation showed that the occurrences of these patterns were correlated with GC content, as well...

DESCRIPTORS:

Chemicals & Biochemicals: AACGTT;CpG dinucleotide--

Methods & Equipment: sequence simulation...

Geographical Name:

4/3,K/4 (Item 4 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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17222739 Biosis No.: 200300181458

CpG oligodeoxynucleotides activate grass carp (*Ctenopharyngodon idellus*) macrophages.

Author: Meng Zhen; Shao Jianzhong (Reprint); Xiang Lixin

Author Address: College of Life Sciences, Zhejiang University, Hangzhou, 310012, China** China

Author E-mail Address: lscshaoj@mail.hz.zj.cn

Journal: Developmental and Comparative Immunology 27 (4): p 313-321 April 2003

Medium: print

ISSN: 0145-305X

Document Type: Article

Record Type: Abstract

Language: English

Abstract: ...ODN-1826 (GACGTT) and -2006 (GTCGTT) for the mice and humans cells, the ODN-1670 (AACGTT) used in Atlantic salmon, the ODN-D containing two repeats motif of those in 1670... ..found and the ODN-D was not more efficient than 1670. It suggests that the sequence which contains the unmethylated 'CG' dinucleotides could make contribute to this immunostimulatory effect. These findings indicate that CpG-ODNs could be useful tools for understanding the important...

4/3,K/5 (Item 5 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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16834896 Biosis No.: 200200428407

DNA sequence recognition of thiazole-containing cross-linked polyamides can be favored by T-A steps

Author: Burckhardt G (Reprint); Simon H (Reprint); Birch-Hirschfeld E; Kittler L; Sharma S K; Lown J W; Zimmer C (Reprint)

Author Address: Institut fuer Molekularbiologie, Friedrich-Schiller-Universitaet (FSU) Jena, Winzerlaer Str. 10, D-07745, Jena, Germany**Germany

Journal: Journal of Biomolecular Structure and Dynamics 19 (6): p 1101-1109 June, 2002

Medium: print

ISSN: 0739-1102

Document Type: Article

Record Type: Abstract

Language: English

DNA sequence recognition of thiazole-containing cross-linked polyamides can be favored by T-A steps

cpgaacggtt.txt

Abstract: The binding ability of cross-linked thiazolated polyamides (containing the base sequence-reading elements thiazole(Th)-pyrrole(Py)-pyr-ole(Py) and thiazole(Th)-imidazole(Im)-pyrrol... ..concentration demonstrate that the dimers with a heptanediyl linker (C7 dimer) show a significantly higher sequence specificity than their corresponding monomers. The dimer of Th-Py-Py primarily prefers binding toof Th-Im-Py to the dodecamer sequences containing a GC pair within the central sequence (e.g. AACGTT). Surprisingly, the sequence binding ability is strongly influenced by the presence of a T-A step: e.g... ..of the cross-linked dimer to the minor groove is discussed in light of the sequence recognition of the TATA box binding protein.

DESCRIPTORS:

Chemicals & Biochemicals: ...DNA sequence recognition

4/3,K/6 (Item 6 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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16222243 Biosis No.: 200100394082

Immunostimulatory CpG-modified plasmid DNA enhances IL-12, TNF-alpha, and NO production by bovine macrophages

Author: Shoda Lisl K M; Kegerreis Kimberly A; Suarez Carlos E; Mwangi Waithaka; Knowles Donald P; Brown Wendy C (Reprint)

Author Address: Department of Veterinary Microbiology and Pathology, Washington State University, Pullman, WA, 99164-7040, USA**USA

Journal: Journal of Leukocyte Biology 70 (1): p 103-112 July, 2001 2001

Medium: print

ISSN: 0741-5400

Document Type: Article

Record Type: Abstract

Language: English

Immunostimulatory CpG-modified plasmid DNA enhances IL-12, TNF-alpha, and NO production by bovine macrophages

Abstract: ...plasmid DNA (pDNA) for B lymphocytes and professional antigen-presenting cells. In mice, modification of immunostimulatory sequences (ISSs), including CpG motifs, in pDNA vectors or oligodeoxynucleotides can increase or decrease their... ..murine and human leukocytes. We have previously characterized the mitogenic properties of oligodeoxynucleotides containing one AACGTT motif for bovine B lymphocytes. We now define cytokine responses by macrophages stimulated with pDNA engineered to contain an ISS comprising two AACGTT motifs. Macrophages activated with CpG-modified pDNA secreted significantly more interleukin-12, tumor necrosis factor...

DESCRIPTORS:

Chemicals & Biochemicals: ...immunostimulatory CpG-modified plasmid DNA

4/3,K/7 (Item 7 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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16068303 Biosis No.: 200100240142

Multivalent DNA-based immunization against hepatitis B virus with plasmids encoding surface and core antigens

Author: Musacchio Alexis (Reprint); Rodriguez Ernesto G; Herrera Antonieta M; Quintana Diogenes; Muzio Verena

Author Address: Vaccine Division, Center for Genetic Engineering and Biotechnology of Havana, Havana, 10 600, Cuba**Cuba

Journal: Biochemical and Biophysical Research Communications 282 (2): p 442-446 March 30, 2001 2001

Medium: print
ISSN: 0006-291X
Document Type: Article
Record Type: Abstract
Language: English

Abstract: ...100 mug of each construct, either alone or in combination. In spite of lacking known immunostimulatory sequences (e.g., AACGTT), significant cellular (proliferative) and humoral immune responses were raised against both antigens. Coadministration of both... ...of the antigen expression and further immune response, by using the Kozak's translation initiation sequence, was also analyzed. No differences due to its presence or absence were observed.

4/3,K/8 (Item 8 from file: 5) Links
Fulltext available through: STIC Full Text Retrieval Options
Biosis Previews(R)
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15665643 Biosis No.: 200000383956
Synthetic oligodeoxynucleotides inhibit IgE induction in human lymphocytes

Author: Fujieda Shigeharu (Reprint); Iho Sumiko; Kimura Yuichi; Yamamoto Hideyuki; Igawa Hideki; Saito Hitoshi
Author Address: Department of Otorhinolaryngology, Fukui Medical University, Shimoaizuki, Matsuoka, Yoshida, Fukui, 910-1193, Japan**Japan
Journal: American Journal of Respiratory and Critical Care Medicine 162 (1): p 232-239 July, 2000 2000
Medium: print
ISSN: 1073-449X
Document Type: Article
Record Type: Abstract
Language: English

Abstract: ...the MPB-70 of Mycobacterium bovis Bacillus Calmette-Guerin. Two ODNs, containing CGT-ACG or AACGTT inhibited IgE production by human PBMC. When other oligonucleotides were substituted in a portion of the sequence of the core or flanking oligonucleotides in the ODN containing CGTACG, ODNs containing NACGTTCC or...

4/3,K/9 (Item 9 from file: 5) Links
Fulltext available through: STIC Full Text Retrieval Options
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15386572 Biosis No.: 200000104885
Modulation of host immune responses by protozoal DNA

Author: Brown Wendy C (Reprint); Suarez Carlos E; Shoda Lisl KM; Estes D Mark
Author Address: Department of Veterinary Microbiology and Pathology, Washington State University, Pullman, WA, 99164-7040, USA**USA
Journal: Veterinary Immunology and Immunopathology 72 (1-2): p 87-94 Dec. 15, 1999 1999
Medium: print
ISSN: 0165-2427
Document Type: Article; Literature Review
Record Type: Abstract
Language: English

Abstract: ...IgG secretion by cultured B cells, stimulating IgG1 and more strongly, IgG2. Several hexameric CpG immunostimulatory sequences (ISS) active for murine B cells were identified in an 11 kb fragment of B. bovis DNA. An oligodeoxyribonucleotide containing one of these (AACGTT), located in the rhoptyr associated protein-1 (rap-1) open reading frame, stimulated B cell...

DESCRIPTORS:

Chemicals & Biochemicals: ...immunostimulatory sequences

4/3,K/10 (Item 10 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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15331378 Biosis No.: 200000049691

Influence of backbone chemistry on immune activation by synthetic oligonucleotides

Author: Pisetsky David S (Reprint); Reich Charles F III

Author Address: VA Medical Center, 508 Fulton St., Durham, NC, USA**USA

Journal: Biochemical Pharmacology 58 (12): p 1981-1988 Dec. 15, 1999 1999

Medium: print

ISSN: 0006-2952

Document Type: Article

Record Type: Abstract

Language: English

Abstract: Depending on base sequence, DNA displays immunological activities relevant to the design of novel therapeutic agents. To determine the... ..These compounds were 30 bases long and consisted of either a single base or an immunostimulatory sequence (AACGTT) flanked on 5' and 3' ends by 12 nucleotides of each base. Cell activation was... ..and cytokine production than the comparable phosphodiester compounds and had activity at lower concentrations. The sequence for optimal stimulation by phosphorothioates varied among responses, however. For example, whereas compounds containing an immunostimulatory sequence all induced similar levels of proliferation and CD69 expression, cytokine production was greatest with compounds.....phosphodiester and phosphorothioates, they failed to stimulate cytokine production. Together, these findings indicate that base sequence as well as backbone chemistry influence immune activation by synthetic oligonucleotides, with the effects varying...

4/3,K/11 (Item 11 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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15169085 Biosis No.: 199900428745

The effect of CpG sequences on the B cell response to a viral glycoprotein encoded by a plasmid vector

Author: Pasquini S; Deng H; Reddy S T; Giles-Davis W; Ertl H C J (Reprint)

Author Address: Wistar Institute, 3601 Spruce Street, Philadelphia, PA, 19104, USA**USA

Journal: Gene Therapy 6 (8): p 1448-1455 Aug., 1999 1999

Medium: print

ISSN: 0969-7128

Document Type: Article

Record Type: Abstract

Language: English

Abstract: ...product in mice. The antibody response could be rescued by concomitant injection of oligonucleotides carrying immunostimulatory sequences. The B cell response to two plasmid vectors, both expressing the same viral glycoprotein but containing a different content of the highly stimulatory AACGTT motif, was compared. Comparable B cell responses were induced to the two constructs given at...

4/3,K/12 (Item 12 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

cpgaacggtt.txt

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14989425 Biosis No.: 199900249085

Mammalian granulocyte-macrophage colony-stimulating factor and some CpG motifs have an effect on the immunogenicity of DNA and subunit vaccines in fish

Author: Kanellos T S; Sylvestre I D; Butler V L; Ambali A G; Partidos C D; Hamblin A S; Russell P H (Reprint)

Author Address: Department of Pathology and Infectious Diseases, Royal Veterinary College, Royal College Street, London, NW1 0TY, UK**UK

Journal: Immunology 96 (4): p 507-510 April, 1999 1999

Medium: print

ISSN: 0019-2805

Document Type: Article

Record Type: Abstract

Language: English

Abstract: A eukaryotic plasmid DNA carrying the AACGTT CpG motif in its ampR gene is a 'danger' signal for mice and caused an... ..no effect on antibody responses to beta-gal in either fish or mice. A synthetic oligonucleotide, which contains the GACGTT motif, potentiated antibody responses to co-administered beta-gal protein in...

4/3,K/13 (Item 13 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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14717222 Biosis No.: 199800511469

DNA and a CpG oligonucleotide derived from Babesia bovis are mitogenic for bovine B cells

Author: Brown Wendy C (Reprint); Estes D Mark; Chantler Sue Ellen; Kegerreis

Kimberly A; Suarez Carlos E

Author Address: Dep. Vet. Microbiol. Pathol., Washington State Univ., Pullman, WA 99164-7040, USA**USA

Journal: Infection and Immunity 66 (11): p 5423-5432 Nov., 1998 1998

Medium: print

ISSN: 0019-9567

Document Type: Article

Record Type: Abstract

Language: English

DNA and a CpG oligonucleotide derived from Babesia bovis are mitogenic for bovine B cells

Abstract: ...human B cells, an 11-kb fragment of B. bovis DNA was analyzed for CG dinucleotide content and for the presence of known immunostimulatory sequences (ISS) centered on a CG motif. The frequency of CG dinucleotides was approximately one... ..known activity for murine B cells were identified. An oligodeoxynucleotide containing one of these ISS (AACGTT), which is present within the rho-primase-associated protein-1 (rap-1) open reading frame, was...

DESCRIPTORS:

Chemicals & Biochemicals: CpG oligonucleotide;immunostimulatory sequences

4/3,K/14 (Item 14 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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14060235 Biosis No.: 199799694295

Immune stimulation-a class effect of phosphorothioate oligodeoxynucleotides in rodents

cpgaacggtt.txt

Author: Monteith David K (Reprint); Henry Scott P; Howard Randy B; Flournoy Shin; Levin Arthur A; Bennett C Frank; Crooke Stanley T

Author Address: Isis Pharmaceuticals, 2292 Faraday Ave., Carlsbad, CA 92008, USA**USA

Journal: Anti-Cancer Drug Design 12 (5): p 421-432 1997 1997

ISSN: 0266-9536

Document Type: Article

Record Type: Abstract

Language: English

Abstract: ...B-lymphocyte proliferation in vitro and splenomegaly correlated well for the oligodeoxynucleotides tested. Particular oligodeoxynucleotide sequence motifs or palindromes have been demonstrated to affect in vitro cell proliferation. Inclusion of a 5'-AACGTT-3' palindrome in a phosphorothioate oligodeoxynucleotide sequence significantly enhanced the potency. While inclusion of this palindrome or a CpG motif alone may...

4/3,K/15 (Item 15 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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13684118 Biosis No.: 199799318178

Hexamer palindromic oligonucleotides with 5'-CG-3' motif(s) induce production of interferon

Author: Sonehara Kazuhiko; Saito Hitoshi; Kuramoto Etsuro (Reprint); Yamamoto

Saburo; Yamamoto Toshiko; Tokunaga Tohru

Author Address: Inst. Biological Science, Mitsui Pharmaceuticals Inc., 1900-1 Togo, Mobara, Chiba 297, Japan**Japan

Journal: Journal of Interferon and Cytokine Research 16 (10): p 799-803 1996

1996

ISSN: 1079-9907

Document Type: Article

Record Type: Abstract

Language: English

Abstract: ...cells, and thus exhibit tumor-regressing activity. The present study showed that a hexamer palindromic oligonucleotide (5'-AACGTT-3') alone induced IFN from mouse spleen cells when added with cationic liposomes. Accordingly, 32... ..the activity. No hexamer oligonucleotides showed the activity when liposomes were absent. A complete palindromic sequence was essential as any single base substitution resulted in diminished activity. Among variety of palindromic oligonucleotides of different sizes with an ACGT sequence at the center, the tetramer oligonucleotide was without activity, whereas the activity of hexamer and longer oligonucleotides was almost equally high... ..strongly suggest that the minimal essential structure required for IFN induction is the hexamer palindromic sequence with CG motif(s).

4/3,K/16 (Item 16 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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12654035 Biosis No.: 199598121868

Myb proteins 'talking' to their DNA (review)

Author: Boulikas Teni

Author Address: Inst. Molecular Med. Sci., 460 Page Mill Road, Palo Alto, CA 94306, USA** USA

Journal: International Journal of Oncology 5 (1): p 101-109 1994 1994

ISSN: 1019-6439

Document Type: Article; Literature Review

Record Type: Abstract
Language: English

Abstract: DNA sequence-specific proteins called transcription factors found in all multicellular organisms control the expression of genes....mammals including humans, plants, flies, Dictyostelium, and yeast. Myb proteins show a preference for the AACGTT, AACnGTT and the AA-C-TAAC-T-GGAA motifs with AAC (or its complementary GTT...

4/3,K/17 (Item 17 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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12605903 Biosis No.: 199598073736

Binding of oligoguanylate to scavenger receptors is required for oligonucleotides to augment NK cell activity and induce IFN

Author: Kimura Yoshimitsu (Reprint); Sonehara Kazuhiko (Reprint); Kuramoto Etsuro (Reprint); Makino Tadashi; Yamamoto Saburo; Yamamoto Toshiko; Kataoka Tetsuro; Tokunaga Tohru

Author Address: Inst. Biological Sci., Mitsui Pharmaceuticals Inc., 1900-1 Togo, Mobara, Chiba 297, Japan**Japan

Journal: Journal of Biochemistry (Tokyo) 116 (5): p 991-994 1994 1994

ISSN: 0021-924X

Document Type: Article

Record Type: Abstract

Language: English

Abstract: ...sequences, we investigated the possible target molecules of the oligonucleotides. Oligo-1, a30mer single-stranded oligonucleotide with oligoG sequences next to the active palindromic sequence (AACGTT), had more activity than oligonucleotides with oligoA, oligoC, or oligoT sequences. The activity of oligo... ..the scavenger receptor on mouse splenocytes. These findings suggest that the binding of an extrapalindromic sequence to the scavenger receptor is required for the immunostimulatory activity of oligo-1.

DESCRIPTORS:

Miscellaneous Terms: Concept Codes: ...PALINDROMIC SEQUENCE

4/3,K/18 (Item 18 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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12542786 Biosis No.: 199598010619

Lipofection of synthetic oligodeoxyribonucleotide having a palindromic sequence of AACGTT to murine splenocytes enhances interferon production and natural killer activity

Author: Yamamoto Toshiko (Reprint); Yamamoto Saburo; Kataoka Tetsuro; Tokunaga Tohru

Author Address: Dep. Bacterial Blood Products, Natl. Inst. Health, 4-7-1 Gakuen, Musashi-Murayama, Tokyo 208, Japan**Japan

Journal: Microbiology and Immunology 38 (10): p 831-836 1994 1994

ISSN: 0385-5600

Document Type: Article

Record Type: Abstract

Language: English

Lipofection of synthetic oligodeoxyribonucleotide having a palindromic sequence of AACGTT to murine splenocytes enhances interferon production and natural killer activity

cpgaacgtt.txt

Abstract: A synthetic 22-mer oligodeoxyribonucleotide having an AACGT palindromic, AAC-22, induced interferon (IFN) production and augmented the natural killer (NK) activity in...

4/3,K/19 (Item 19 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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12491543 Biosis No.: 199497512828

Synthetic oligonucleotides with certain palindromes stimulate interferon production of human peripheral blood lymphocytes in vitro

Author: Yamamoto Toshiko (Reprint); Yamamoto Saburo (Reprint); Kataoka Tetsuro

(Reprint); Komuro Katsutoshi (Reprint); Kohase Masayoshi; Tokunaga Tooru

Author Address: Dep. Bacterial Blood Products, Natl. Inst. Health, 4-7-1 Gakuen,

Musashimurayama-shi, Tokyo 208, Japan**Japan

Journal: Japanese Journal of Cancer Research 85 (8): p 775-779 1994 1994

ISSN: 0910-5050

Document Type: Article

Record Type: Abstract

Language: English

Abstract: ...of synthetic single-stranded 30-mer oligodeoxyribonucleotides (oligoDNAs) with three different kinds of hexamer palindromic sequence to induce interferon (IFN) production of human peripheral blood lymphocytes (PBL). When PBL was cultured with oligoDNA having a palindromic AACGTT or GACGTC, IFN activity was detected by bioassay in the culture fluid after 8 h...

4/3,K/20 (Item 20 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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11359027 Biosis No.: 199294060868

UNIQUE PALINDROMIC SEQUENCES IN SYNTHETIC OLIGONUCLEOTIDES ARE REQUIRED TO INDUCE INF AND AUGMENT INF-MEDIATED NATURAL KILLER ACTIVITY

Author: YAMAMOTO S (Reprint); YAMAMOTO T; KATAOKA T; KURAMOTO E; YANO O; TOKUNAGA T

Author Address: DEP CELLULAR IMMUNOLOGY, NATIONAL INSTITUTE HEALTH, 2-10-35

KAMIOHSAKI, SHINAGAWA-KU, TOKYO 141, JPN**JAPAN

Journal: Journal of Immunology 148 (12): p 4072-4076 1992

ISSN: 0022-1767

Document Type: Article

Record Type: Abstract

Language: ENGLISH

Abstract: Thirty-mer single-stranded oligonucleotides, with a sequence chosen from the known cDNA encoding the 64-kDa protein named Ag A or the... cell activity of mouse spleen cells by coinubation in vitro. Three with the hexamer palindromic sequence as GACGTC were active, whereas two kinds of oligonucleotides with no palindromic were inactive. The... least one of the different palindromic sequences showed no activity. When a portion of the sequence of the inactive oligonucleotides was substituted with either palindromic sequence of GACGTC, AGCGCT, or AACGTT, the oligonucleotides acquired the ability to augment NK activity. In contrast, the oligonucleotides substituted with another palindromic sequence such as ACCGGT was without effect. Furthermore, exchange of two neighboring mononucleotides within, but not outside, the active palindromic sequence destroyed the ability of the oligonucleotides to augment NK cell activity. Stimulation of spleen cells with the substituted oligonucleotide, A4a-AAC, induced production of significant amounts of IFN- α /. β /. and small amounts of IFN- γ /. Augmentation of NK activity of the cells by the oligonucleotide was ascribed to IFN- α /. β /. production. These results strongly suggest that the presence of the unique palindromic

cpgaacggtt.txt
sequences, such as GACGTC, AGCGCT, and AACGTT, but not ACCGGT, is essential for the immunostimulatory activity of oligonucleotides.

4/3,K/21 (Item 21 from file: 5) Links
Fulltext available through: STIC Full Text Retrieval Options
Biosis Previews(R)
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10880479 Biosis No.: 199192126250
INTERACTION OF THE V-MYB AND C-MYB PROTEINS WITH REGULATORY SEQUENCES OF THE HUMAN C-MYC GENE

Author: ZOBEL A (Reprint); KALKBRENNER F; GUEHMANN S; NAWRATH M; VORBRUEGGEN G; MOELLING K
Author Address: MAX-PLANCK-INST MOLEKULARE GENETIK, ABT SCHUSTER, IHNESTRASSE 73, D-1000 BERLIN 33, GER**GERMANY
Journal: Oncogene 6 (8): p 1397-1408 1991
ISSN: 0950-9232
Document Type: Article
Record Type: Abstract
Language: ENGLISH

Abstract: ...different affinities whereby strong binding correlates better with conservation of the palindromic sequences, AACXGTT or AACGTT, than the previously described consensus sequence. Flanking AT-rich sequences further increase the binding affinity. The c-Myb-binding sites are...
Descriptors: ONCOGENES NUCLEOTIDE SEQUENCE MOLECULAR SEQUENCE DATA GENE EXPRESSION

4/3,K/22 (Item 1 from file: 24) Links
Fulltext available through: STIC Full Text Retrieval Options
CSA Life Sciences Abstracts
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0002443079 IP Accession No: 5551323
Effect of hsp65 DNA vaccination carrying immunostimulatory DNA sequences (CpG motifs) against Mycobacterium leprae multiplication in mice

Nomaguchi, H; Mukai, T; Takeshita, F; Matsuoka, M; Maeda, Y; Aye, TM; Jahan, N; Yogi, Y; Sato, MEY; Makino, M* Leprosy Research Center, National Institute of Infectious Diseases, 4-2-1-Aobacho, Higashimurayama, Tokyo 189-0002, Japan, [mailto:mmaki@nih.go.jp]
International Journal of Leprosy and Other Mycobacterial Diseases , v 70 , n 3 , p 182-190 , September 2002
Publication Date: 2002

Document Type: Journal Article
Record Type: Abstract
Language: English
Summary Language: English; Spanish; French
ISSN: 0148-916X
File Segment: Bacteriology Abstracts (Microbiology B)
Effect of hsp65 DNA vaccination carrying immunostimulatory DNA sequences (CpG motifs) against Mycobacterium leprae multiplication in mice

Abstract:
...and humoral antigen (Ag)-specific immune responses. It has been reported that palindromic, single stranded immunostimulatory DNA sequences (ISS) induce production of IFN- alpha , IFN- beta and IFN- gamma by murine ...ISS include the palindromic CpG-containing hexamers: 5'-GACGTC-3', 5'-AGCGCT-3', and 5'-AACGTT-3'. Recently, Sato, et al., reported that a pDNA expression vector (pACB) containing two repeats of 5'- AACGTT-3' in the ampr gene is highly immunogenic, because it elicits

strong Ag-specific immunity...

Identifiers: Immunostimulatory DNA sequences
Subj Catg:

4/3,K/23 (Item 2 from file: 24) Links

Fulltext available through: STIC Full Text Retrieval Options

CSA Life Sciences Abstracts

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0002405727 IP Accession No: 5726736

Enhanced cell-mediated IFN- gamma -secreting activity against the HIV-1IIIB V3 peptide of the TAB9 multiepitope after DNA vaccine backbone engineering

Rodriguez, EG*; Vazquez, DM; Herrera, AM; Duarte, CA Vaccine Division, Center for Genetic Engineering and Biotechnology of Havana, P.O. Box 6162, Havana 10600, Cuba, [mailto:ernesto.galban@cigb.edu.cu]

Biochemical and Biophysical Research Communications , v 308 , n 4 , p 713-718 , September 5, 2003

Publication Date: 2003

Publisher: Elsevier Inc.

Document Type: Journal Article

Record Type: Abstract

Language: English

Summary Language: English

ISSN: 0006-291X

File Segment: Nucleic Acids Abstracts; Virology & AIDS Abstracts

Abstract:

...globin-based termination/polyadenylation sequences, and 5, 10, and 20 copies of the 5 super()-AACGTT-3 super() CpG motif were inserted. Balb/c mice were immunized by intramuscular injection of...

Descriptors: Repeated sequence; Genetic engineering; Antigens; DNA viruses; Plasmids; Epitopes; gamma -Interferon; Immunoglobulin G; Expression vectors; Polyadenylation; DNA...

Identifiers:

4/3,K/24 (Item 3 from file: 24) Links

Fulltext available through: STIC Full Text Retrieval Options

CSA Life Sciences Abstracts

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0002111341 IP Accession No: 4758218

DNA Sequence Recognition of a Cross-Linked Polyamide: CD Studies, Footprinting and Effects on the Activity of DNA Gyrase

Burckhardt, G; Foertsch, I; Simon, H; Birch-Hirschfeld, E; Kittler, L; Schuetz, H; Sharma, SK; Lown, JW; Zimmer, C Institut fuer Molekularbiologie der Friedrich-Schiller-Universitaet (FSU) Jena, Winzerlaer Str. 10, D-07745 Jena, Germany, [mailto:christoph.zimmer@rz.uni-jena.de]

Editor: Sarma, RH; Sarma, MH (eds)

Journal of Biomolecular Structure and Dynamics , v 11 , n 2 , p 355-363 , March 28, 2000

Publication Date: 2000

Publisher: Adenine Press, 2066 Central Avenue Schenectady NY 12304 USA

Conference:

Proc. 11th Conversation in Biomolecular Stereodynamics, Albany, NY (USA), 15-19 Jun 2000

Document Type: Journal Article; Conference

Record Type: Abstract

Language: English

Summary Language: English

ISSN: 0739-1102

File Segment: Nucleic Acids Abstracts

DNA Sequence Recognition of a Cross-Linked Polyamide: CD Studies, Footprinting and Effects on the Activity of...

Abstract:

...a clear-cut different binding tendency to various dodecamers at 2 M NaCl indicating that sequence specificity becomes apparent at high salt concentration. The highest binding preference occurs to the dodecamers with the central sequences: AACGTT, AAGTTT and ATCGTA but almost no affinity was observed at 2 M NaCl for AGCGCT, ATCGAT and AAATTT. From the results it appears that the sequence selectivity of the dimer can be ascribed to the side-by-side binding mode of...

4/3,K/25 (Item 4 from file: 24) Links

Fulltext available through: STIC Full Text Retrieval Options

CSA Life Sciences Abstracts

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0002018988 IP Accession No: 4634558

Presence of CpG DNA and the Local Cytokine Milieu Determine the Efficacy of Suppressive DNA Vaccination in Experimental Autoimmune Encephalomyelitis

Lobell, A; Weissert, R; Eltayeb, S; Svanholm, C; Olsson, T; Wigzell, H Microbiology and Tumorbiology Center, Karolinska Institute, Box 280, S-171 77 Stockholm, Sweden, [mailto:Anna.Lobell@mtc.ki.se]

Journal of Immunology, v 163, n 9, p 4754-4762, November 1, 1999

Publication Date: 1999

Document Type: Journal Article

Record Type: Abstract

Language: English

Summary Language: English

ISSN: 0022-1767

File Segment: Immunology Abstracts; Medical & Pharmaceutical Biotechnology Abstracts

Abstract:

We here study the adjuvant properties of immunostimulatory DNA sequences (ISS) and coinjecting cytokine-coding cDNA in suppressive vaccination with DNA encoding an... necessary for efficient DNA vaccination, we studied the effect of one such ISS, the 5'-AACGTT-3' motif, in our system. Treatment with a DNA vaccine encoding myelin basic protein peptide 68-85 and containing three ISS of 5'-AACGTT-3' sequence suppressed clinical signs of EAE, while a corresponding DNA vaccine without such ISS had no...

Descriptors: ...colony-stimulating factor; Tumor necrosis factor- alpha ; Myelin basic protein; Vaccines; Cytokines; Experimental allergic encephalomyelitis; immunostimulatory DNA sequences; DNA vaccines

Identifiers:

4/3,K/26 (Item 5 from file: 24) Links

Fulltext available through: STIC Full Text Retrieval Options

CSA Life Sciences Abstracts

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0001556843 IP Accession No: 3830608

Ability of oligonucleotides with certain palindromes to induce interferon production and augment natural killer cell activity is associated with their base length

Yamamoto, T; Yamamoto, S; Kataoka, T; Tokunaga, T Dep. Bact. and Blood Prod., Natl. Inst. Health, Gakuen, 4-7-1, Musashi-Murayama-shi, Tokyo 208, Japan
ANTISENSE RES. DEV., v 4, n 2, p 119-122, 1994
Addl. Source Info: ANTISENSE RES. DEV., vol. 4, no. 2, pp. 119-122, 1994
Publication Date: 1994

Document Type: Journal Article
Record Type: Abstract
Language: English
Summary Language: English
ISSN: 1050-5261
File Segment: Medical & Pharmaceutical Biotechnology Abstracts; Nucleic Acids Abstracts; Immunology Abstracts

Abstract:

A synthetic 30-mer single-stranded oligodeoxyribonucleotide with a hexamer palindrome, AACGTT, induced IFN production and augmented NK activity in murine splenocytes. This effect does not appear to result from an antisense mechanism but rather is due to the palindrome. To clarify the required minimal size of the nucleotide, 10 kinds of 12- to 30-mer nucleotides were examined. Immunostimulatory activity of oligonucleotides 18 bases or more in length was observed and was proportional to... ..16 bases or less in length were not active even if they possessed the palindromic sequence. These results indicate that the immunostimulatory activity of oligonucleotides with certain palindromic sequences requires an oligonucleotide at least 18 bases long.

Subj Catg: ...Antisense; 14250
Material Class:

4/3,k/27 (Item 6 from file: 24) Links
Fulltext available through: STIC Full Text Retrieval Options
CSA Life Sciences Abstracts
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0001058036 IP Accession No: 2572893
Interaction of the v- and c-Myb proteins with regulatory sequences of the human c-myc gene.

Zobel, A; Kalkbrenner, F; Guehmann, S; Nawrath, M; Vorbruegg, G; Moelling, K
Max-Planck-Inst. Mol. Genet., Abt. Schuster, Ihnestr. 73, D-1000 Berlin 33, FRG
Oncogene, v 6, n 8, p 1397-1407, 1991
Addl. Source Info: Oncogene, vol. 6, no. 8, pp. 1397-1407, 1991
Publication Date: 1991

Document Type: Journal Article
Record Type: Abstract
Language: English
Summary Language: English
ISSN: 0950-9232
File Segment: Nucleic Acids Abstracts; Human Genome Abstracts; Oncogenes & Growth Factors Abstracts

Abstract:

...different affinities whereby strong binding correlates better with conservation of the palindromic sequences, AACXGTT or AACGTT, than the previously described consensus sequence. Flanking AT-rich sequences further increase the binding affinity. The c-Myb-binding sites are...

Identifiers: genes; oncogenes; c-myc gene; binding; sites; regulatory; nucleotide sequence; man; non-cooperativity; Myb protein
Subj Catg:

4/3,K/28 (Item 1 from file: 34) Links

Fulltext available through: STIC Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

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10160766 Genuine Article#: 491GD No. References: 48

Induction of interleukin-6 and interleukin-12 in bovine B lymphocytes, monocytes, and macrophages by a CpG oligodeoxynucleotide (ODN 2059) containing the GTCGT motif

Author: Zhang Y; Shoda LKM; Brayton KA; Estes DM; Palmer GH; Brown WC (REPRINT)

Corporate Source: Washington State Univ, Coll Vet Med, Dept Vet Microbiol &

Pathol, Pullman//WA/99164 (REPRINT); Washington State Univ, Coll Vet Med, Dept Vet

Microbiol & Pathol, Pullman//WA/99164; Univ Missouri, Coll Vet Med, Dept

Pathobiol, Columbia//MO/65211

Journal: JOURNAL OF INTERFERON AND CYTOKINE RESEARCH, 2001, v 21, N10 (OCT), p 871-881

ISSN: 1079-9907 Publication date: 20011000

Publisher: MARY ANN LIEBERT INC PUBL, 2 MADISON AVENUE, LARCHMONT, NY 10538 USA

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

Abstract: ...B cell proliferation at a lower concentration (10 μM) when compared with CpG ODN containing AACGTT or GACGTT motifs active for murine leukocytes.

Furthermore, ODN 2059 induced interleukin-6 (IL-6...)

Identifiers-- ...SURFACE PROTEIN-2; NECROSIS-FACTOR-ALPHA; IFN-GAMMA PRODUCTION;

BACTERIAL-DNA; BABESIA-BOVIS; IN-VITRO; IMMUNOSTIMULATORY PROPERTIES;

IMMUNE-RESPONSES; TH1 IMMUNITY

4/3,K/29 (Item 1 from file: 50) Links

Fulltext available through: STIC Full Text Retrieval Options

CAB Abstracts

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0008401615 CAB Accession Number: 20033043653

CpG oligodeoxynucleotides activate grass carp (Ctenopharyngodon idellus [idella]) macrophages.

Meng Zhen; Shao JianZhong; Xiang Lixin

Author email address: lscshaoj@mail.hz.zj.cn

College of Life Sciences, Zhejiang University, Hangzhou 310012, China.

Developmental and Comparative Immunology vol. 27 (4): p.313-321

Publication Year: 2003

ISSN: 0145-305X

Digital Object Identifier: 10.1016/S0145-305X(02)00104-0

Publisher: Elsevier Science Inc. New York, USA

Language: English Record Type: Abstract

Document Type: Journal article

... ODN-1826 (GACGTT) and -2006 (GTCGTT) for the mice and humans cells, the ODN-1670 (AACGTT) used in Atlantic salmon, the ODN-D containing two repeats motif of those in 1670... .. found and the ODN-D was not more efficient than 1670. It suggests that the sequence which contains the unmethylated 'CG' dinucleotides could make contribute to this immunostimulatory effect. These findings indicate that CpG-ODNs could be useful tools for understanding the important...

4/3,K/30 (Item 1 from file: 71) Links

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000063430 Supplier Number: 1994168545

Lipofection of synthetic oligodeoxyribonucleotide having a palindromic sequence of AACGTT to murine splenocytes enhances interferon production and natural killer activity

Yamamoto T.; Yamamoto S.; Kataoka T.; Tokunaga T.

cpgaacggtt.txt

Corresp. Author/Affil: Yamamoto T., Dept. Bacterial and Blood Products, National Institute of Health, 4-7-1 Gakuen, Musashi-Murayama, Tokyo 208, Japan
Journal : Microbiology and Immunology (MICROBIOL. IMMUNOL.), v38, n10, (831-836), 1994, Japan
Publication Date: November 10, 1994 (19941110)
Codens: MIIMD
ISSN: 0385-5600 eISSN: 1471-2970
Record Type: Abstract; New
Document Type: Article
Languages: English Summary Languages: English
Lipofection of synthetic oligodeoxyribonucleotide having a palindromic sequence of AACGTT to murine splenocytes enhances interferon production and natural killer activity

A synthetic 22-mer oligodeoxyribonucleotide having an AACGTT palindrome, AAC-22, induced interferon (IFN) production and augmented the natural killer (NK) activity in...

4/3,K/31 (Item 2 from file: 71) Links

ELSEVIER BIOBASE

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0000606721 Supplier Number: 1994108402

Myb proteins 'talking' to their DNA

Boulikas T.

Corresp. Author/Affil: Boulikas T., Inst. of Molecular Medical Sciences, 460 Page Mill Road, Palo Alto, CA, 94306, United States

Journal : International Journal of Oncology (INT. J. ONCOL.), v5, n1, (101-109), 1994, Greece

Publication Date: June 21, 1994 (19940621)

Codens: IJONE

ISSN: 1019-6439 eISSN: 1471-2970

Record Type: Abstract; New

Document Type: Review

Languages: English Summary Languages: English

DNA sequence-specific proteins called transcription factors found in all multicellular organisms control the expression of genes.....mammals including humans, plants, flies, Dictyostelium, and yeast. Myb proteins show a preference for the AACGTT, AACnGTT and the T G AACAACTGAA motifs with AAC (or its complementary GTT) as the...

4/3,K/32 (Item 1 from file: 72) Links

Fulltext available through: STIC Full Text Retrieval Options

EMBASE

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0081683649 EMBASE No: 2007117237

Innovative restriction site created PCR-RFLP for detection of benzimidazole resistance in Teladorsagia circumcincta

Shayan P.; Eslami A.; Borji H.

Department of Parasitology, Faculty of Veterinary Medicine, University of Tehran, Tehran, Iran, Islamic Republic of

Author email: pshayan@ut.ac.ir

Corresp. Author/Affil: Shayan P.: Department of Parasitology, Faculty of Veterinary Medicine, University of Tehran, Tehran, Iran, Islamic Republic of

Corresp. Author Email: pshayan@ut.ac.ir

Parasitology Research (Parasitol. Res.) (Germany) April 1, 2007, 100/5 (1063-1068)

CODEN: PARRE ISSN: 0932-0113

Item Identifier (DOI): 10.1007/s00436-006-0357-y

Page 19

cpgaacgtt.txt

Document Type: Journal ; Article Record Type: Abstract
Language: English Summary language: English
Number of References: 27

...introduced modification in forward primer (UTvet MF-primer) leads to the creation of restriction site (AACGTT) for PspI. Therefore, in the case of normal allele only, PspI can cut the corresponding...

Medical Descriptors:

*
animal experiment; article; controlled study; DNA flanking region; DNA isolation; female; gene amplification; gene sequence; heterozygote; homozygote; male; nonhuman; nucleotide sequence; priority journal; sheep
Orig. Descriptors:

4/3,K/33 (Item 2 from file: 72) Links

Fulltext available through: STIC Full Text Retrieval Options

EMBASE

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0079620924 EMBASE No: 2003328937

Enhanced cell-mediated IFN-gamma-secreting activity against the HIV-1 SUB IIIB V3 peptide of the TAB9 multi-epitope after DNA vaccine backbone engineering

Rodriguez E.G.; Vazquez D.M.; Herrera A.M.; Duarte C.A.
Vaccine Division, Ctr. Genetic Eng./Biotech. of Havana, P.O. Box 6162, Havana 10600, Cuba

Author email: ernesto.galban@cigb.edu.cu

Corresp. Author/Affil: Rodriguez E.G.: Vaccine Division, Ctr. Genetic Eng./Biotech. of Havana, P.O. Box 6162, Havana 10600, Cuba

Corresp. Author Email: ernesto.galban@cigb.edu.cu

Biochemical and Biophysical Research Communications (Biochem. Biophys. Res. Commun.) (United States) September 5, 2003, 308/4 (713-718)

CODEN: BBRCA ISSN: 0006-291X

Item Identifier (DOI): 10.1016/S0006-291X(03)01462-1

Document Type: Journal ; Article Record Type: Abstract

Language: English Summary language: English

Number of References: 25

...beta globin-based termination/polyadenylation sequences, and 5, 10, and 20 copies of the 5prime-AACGTT-3prime CpG motif were inserted. Balb/c mice were immunized by intramuscular injection of 200µg...

Medical Descriptors:

*
...splicing; enzyme linked immunosorbent assay; enzyme linked immunospot assay; female; Fowlpox virus; gene insertion; gene sequence; genetic engineering; Human immunodeficiency virus 1; immunization; immunoassay; intron; mouse; nonhuman; polyadenylation; priority journal; promoter...
Orig. Descriptors:

4/3,K/34 (Item 3 from file: 72) Links

Fulltext available through: STIC Full Text Retrieval Options

EMBASE

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0075876834 EMBASE No: 1994295619

Mode of action of oligonucleotide fraction extracted from Mycobacterium bovis BCG

Yamamoto S.

National Institute of Health, Gakuen 4-7-1, Musashi-Murayama, Tokyo 208, Japan
Corresp. Author/Affil: Yamamoto S.: National Institute of Health, Gakuen 4-7-1, Musashi-Murayama, Tokyo 208, Japan

cpgaacgtt.txt
Kekkaku (KEKKAKU) (Japan) October 17, 1994 , 69/9 (571-574)
CODEN: KEKKA ISSN: 0022-9776
Document Type: Journal ; Article Record Type: Abstract
Language: Japanese Summary language: English
Mode of action of oligonucleotide fraction extracted from Mycobacterium bovis BCG

...size, and peaked at 45 nucleotides. We synthesized 13 kinds of 45-mer nucleotides with sequence present in the known cDNA encoding various BCG proteins. Six out of these oligonucleotides, which... cell activity of mouse spleen cells by cocubation in vitro. When a portion of the sequence of the inactive oligonucleotides was substituted with either palindromic sequence of GACGTC, ACCGCT or AACGTT, the oligonucleotide acquired the ability to augment NK activity. In contrast, the oligonucleotides substituted with another palindromic sequence such as ACCGGT was without effect. Furthermore, exchange of two neighboring mononucleotides within, but not outside, the active palindromic sequence destroyed the ability of the oligonucleotide to augment NK activity. Taken together, these findings indicate that some, but not all, of... sequences also influenced the activity. Eighteen-mer to 30-mer oligonucleotides with 6-mer palindromic sequence as AACGTT showed the activity, while those less than 16-mer oligonucleotides did not. A 30-mer oligonucleotide with a 10-mer palindrome and extra-palindromic oligoguanilate sequences showed the strongest activity among... the incubation for 18-24 hr; lipofection was 3000-fold more efficient than the naked oligonucleotide. While an inactive 22-mer oligonucleotide, ACC-22, took little to induce IFN. The binding of SUP 32p-oligonucleotides to mouse... surface receptor to transfer the inducing signal into the cell. The reason why the active oligonucleotide possess activity is still obscure. A further study on the mode of action for IFN...

4/3,K/35 (Item 1 from file: 144) Links
Pascal
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17106085 PASCAL No.: 05-0172909

DNA structure constraint is probably a fundamental factor inducing CpG deficiency in bacteria

YONG WANG; LEUNG Frederick C C
Department of Zoology, The University of Hong Kong, Pokfulam, Hong Kong
Journal: Bioinformatics : (Oxford. Print),
2004, 20 (18)
3336-3345
Language: English

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Motivation: It has been speculated that CpG dinucleotide deficiency in genomes is a consequence of DNA methylation. However, this hypothesis does not adequately...

... the TTCGAA pattern, was under represented in low GC content bacterial genomes regardless of CpG dinucleotide level. This is in contrast to the AACGTT pattern, indicating that the counterselection is context-dependent. Further study discovered nine underrepresented patterns that...

... proposed for the strong correlation between GC content and CpG deficiency. The result of random sequence simulation showed that the occurrences of these patterns were correlated with GC content, as well...

4/3,K/36 (Item 1 from file: 154) Links

Fulltext available through: STIC Full Text Retrieval Options

MEDLINE(R)

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14798735 PMID: 12023812

DNA sequence recognition of thiazole-containing cross-linked polyamides can be favored.

Burckhardt G; Simon H; Birch-Hirschfeld E; Kittle L; Sharma S K; Lown J W; Zimmer C
Institut fur Molekularbiologie, Friedrich-Schiller-Universitat (FSU) Jena,
winzerlaer Str. 10, D-07745 Jena, Germany.
Journal of biomolecular structure & dynamics (United States) Jun 2002 , 19 (6)
p1101-9, ISSN: 0739-1102--Print Journal Code: 8404176

Publishing Model Print

Document type: Journal Article; Research Support, Non-U.S. Gov't

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

DNA sequence recognition of thiazole-containing cross-linked polyamides can be favored.

The binding ability of cross-linked thiazolated polyamides (containing the base sequence-reading elements thiazole(Th)-pyrrole(Py)-pyrrole(Py) and thiazole(Th)-imidazole(Im)-pyrrole(Py)... ..concentration demonstrate that the dimers with a heptanediyl linker (C7 dimer) show a significantly higher sequence specificity than their corresponding monomers. The dimer of Th-Py-Py primarily prefers binding toof Th-Im-Py to the dodecamer sequences containing a GC pair within the central sequence (e.g. AACGTT). Surprisingly, the sequence binding ability is strongly influenced by the presence of a T-A step: e.g... ..of the cross-linked dimer to the minor groove is discussed in light of the sequence recognition of the TATA box binding protein. (Descriptors: ; AT Rich Sequence--physiology--PH; Animals; Binding Sites; Cattle; DNA--genetics--GE; Ligands Named Person:

4/3,K/37 (Item 2 from file: 154) Links

Fulltext available through: STIC Full Text Retrieval Options

MEDLINE(R)

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11280459 PMID: 7526022

[Commemorative lecture of receiving Imamura Memorial Prize. II. Mode of action of oligonucleotide fraction extracted from Mycobacterium bovis BCG]

Yamamoto S

National Institute of Health, Tokyo, Japan.

Kekkaku - Tuberculosis (JAPAN) Sep 1994 , 69 (9) p571-4 , ISSN:

0022-9776--Print Journal Code: 0422132

Publishing Model Print

Document type: English Abstract; Journal Article

Languages: JAPANESE

Main Citation Owner: NLM

Record type: MEDLINE; Completed

[Commemorative lecture of receiving Imamura Memorial Prize. II. Mode of action of oligonucleotide fraction extracted from Mycobacterium bovis BCG]

...size, and peaked at 45 nucleotides. We synthesized 13 kinds of 45-mer nucleotides with sequence present in the known cDNA encoding various BCG proteins. Six out of these oligonucleotides, which... ..cell activity of mouse spleen cells by

cpgaacgtt.txt

coinubation in vitro. when a portion of the sequence of the inactive oligonucleotides was substituted with either palindromic sequence of GACGTC, AGCGCT or AACGTT, the oligonucleotide acquired the ability to augment NK activity. In contrast, the oligonucleotides substituted with another palindromic sequence such as ACCGGT was without effect. Furthermore, exchange of two neighboring mononucleotides within, but not outside, the active palindromic sequence destroyed the ability of the oligonucleotide to augment NK activity. (ABSTRACT TRUNCATED AT 250 WORDS) (Descriptors: ; Animals; Awards and Prizes; Base Sequence; Interferons--biosynthesis--BI; Killer Cells, Natural--immunology--IM; Mice; Molecular Sequence Data Named Person:

4/3,K/38 (Item 3 from file: 154) Links

Fulltext available through: STIC Full Text Retrieval Options

MEDLINE(R)

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10339483 PMID: 1376349

Unique palindromic sequences in synthetic oligonucleotides are required to induce IFN [correction of INF] and augment IFN-mediated [correction of INF] natural killer activity.

Yamamoto S; Yamamoto T; Kataoka T; Kuramoto E; Yano O; Tokunaga T
Department of Cellular Immunology, National Institute of Health, Tokyo, Japan.
Journal of immunology (Baltimore, Md. - 1950) (UNITED STATES) Jun 15 1992 ,
148 (12) p4072-6 , ISSN: 0022-1767--Print Journal Code: 2985117R
Publishing Model Print

Document type: Journal Article; Research Support, Non-U.S. Gov't

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Thirty-mer single-stranded oligonucleotides, with a sequence chosen from the known cDNA encoding the 64-kDa protein named Ag A or the... cell activity of mouse spleen cells by coinubation in vitro. Three with the hexamer palindromic sequence as GACGTC were active, whereas two kinds of oligonucleotides with no palindrome were inactive. The... least one of the different palindromic sequences showed no activity. When a portion of the sequence of the inactive oligonucleotides was substituted with either palindromic sequence of GACGTC, AGCGCT, or AACGTT, the oligonucleotide acquired the ability to augment NK activity. In contrast, the oligonucleotides substituted with another palindromic sequence such as ACCGGT was without effect. Furthermore, exchange of two neighboring mononucleotides within, but not outside, the active palindromic sequence destroyed the ability of the oligonucleotides to augment NK cell activity. Stimulation of spleen cells with the substituted oligonucleotide, A4a-AAC, induced production of significant amounts of IFN-alpha/beta and small amounts of IFN-gamma. Augmentation of NK activity of the cells by the oligonucleotide was ascribed to IFN-alpha/beta production. These results strongly suggest that the presence of the unique palindromic sequences, such as GACGTC, AGCGCT, and AACGTT, but not ACCGGT, is essential for the immunostimulatory activity of oligonucleotides. (

Descriptors: ; Animals; Base Sequence; Complement C1 Inactivator Proteins--genetics--GE; Cytotoxicity, Immunologic; Heat-Shock Proteins--genetics--GE; Mice; Inbred BALB C; Molecular Sequence Data; Mycobacterium bovis --genetics--GE; Oligodeoxynucleotides--chemistry--CH; Structure-Activity Relationship Named Person:

4/3,K/39 (Item 1 from file: 370) Links

Science

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00500536 (USE 9 FOR FULLTEXT)

Immunostimulatory DNA Sequences Necessary for Effective Intradermal Gene Immunization

Sato, Yukio; Roman, Mark; Tighe, Helen; Lee, Delphine; Corr, Maripat; Nguyen,
Page 23

cpgaacgtt.txt

Minh-Duc; Silverman, Gregg J.; Lotz, Martin; Carson, Dennis A.; Raz, Eyal
Department of Medicine and The Sam and Rose Stein Institute for Research on Aging,
University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0663,
USA.

Science Vol. 273 5273 pp. 352

Publication Date: 7-19-1996 (960719) Publication Year: 1996

Document Type: Journal ISSN: 0036-8075

Language: English

Section Heading: Reports

Word Count: 2127 (THIS IS THE FULLTEXT)

Immunostimulatory DNA Sequences Necessary for Effective Intradermal Gene
Immunization

Abstract:

...immune responses to the encoded antigens. Instead, the immunogenicity of
plasmid DNA (pDNA) requires short immunostimulatory DNA sequences
(ISS) that contain a CpG dinucleotide in a particular base context.
Human monocytes transfected with pDNA or double-stranded oligonucleotides
containing...

Text:

...To test the hypothesis that the ampr sequence may up-regulate the
immune response to (beta) -Gal in gene-vaccinated mice, we injected...

...Palindromic, single-stranded immunostimulatory DNA sequences
(ISS) have been reported to induce production of IFN- α , IFN- (beta) , and
...

...hexamers: 5 (prime) -GACGTC-3 (prime) , 5 (prime) -AG-CGCT-3 (prime) ,
and 5 (prime) -AACGTT-3 (prime) (B7) . Two repeats of 5 (prime) -
AACGTT-3 (prime) were in the ampr gene, whereas no ISS were
identified within the kanR gene (Fig. 1). To test the hypothesis that the 5
(prime) -AACGTT-3 (prime) ISS within the ampr gene facilitates the
induction of CTL and T.inf...

...to (beta) -Gal, we subcloned either one or two repeats of the ISS 5
(prime) -AACGTT-3 (prime) to sites flanking the kanR gene in the
pKCB-Z vector. The new...

...The immunostimulatory effect of bacterial DNA was discovered by
Tokunaga et al. (B8) . By synthesizing single-stranded...

...activation (B10) . They found that cytosine methylation or the
elimination of the CpG from the oligonucleotide abolished the
lymphocyte stimulatory effect. The activation capability was attributed to
a series of CpG...based vectors, we transfected in vitro fresh human
monocytes with a panel of pDNAs, ISS oligonucleotide, and
ISS-deficient oligonucleotide (B12) (B13) and then assessed by
reverse transcription-polymerase chain reaction (RT-PCR) the expression...

...pKISS-1-CB, and double-stranded ISS digonucleotide, but not with pKCB or
ISS-deficient oligonucleotide, enhanced within 3 hours mRNA amounts
for all three cytokines (B12) (B13) . IFN- α plays...

...expression does not necessarily produce a stronger immune response. Both
the localization and the precise sequence of the ISS within the
plasmid backbone are also important for DNA vaccination. Thus, the...

...Fig. 1). In contrast, the addition of one or two repeats of the 5

Author: Magnusson, Mattias

Degree: Fil.dr.

Year: 2003

Corporate Source/Institution: Sveriges Lantbruksuniversitet (Sweden) (0697)

Source: Volume 6501C of Dissertations Abstracts International.

PAGE 103 . 49 PAGES

ISBN: 91-576-6389-0

Publisher: Sveriges Lantbruksuniversitet, Box 7071, SE-750 07 Uppsala, Sweden

Reactivity of human and porcine natural interferon-alpha producing cells to immunostimulatory DNA

...but pCDNA3 retained this ability after mutation of the CpG-motifs (5<sup>AAGCTT 3<sup>') in the ampicillin resistance gene. Lipofection and presence of an unmethylated... ..of unmethylated CpG dinucleotides. This indicates that there are species differences in the recognition of immunostimulatory DNA and that eukaryotic DNA sometimes can be interferogenic. Certain CpG-containing ODNs with flanking... ..lipofectin, both as phosphorothioate/phosphodiester chimeric ODNs or as phosphodiester ODNs. Addition of poly-G, sequence to the phosphodiester ODN H clearly enhanced its activity, but did not replace the need... ..the only cells among human or porcine PBMC that produced IFN- α ; in response to immunostimulatory DNA.

The human NIPC/PDC also produce IFN- α ; in response to apoptotic cells in... ..bind, Fc γ R had a general inhibitory effect on IFN- α ; production induced by immunostimulatory DNA or herpes simplex virus.

Elucidation of the mechanisms whereby NIPC/PDC are activated may...

4/3,K/42 (Item 2 from file: 35) Links

Dissertation Abs Online

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01940291 ORDER NO: AADAA-I3086326

Effects of immunostimulatory DNA sequences on bovine immune responses

Author: Zhang, Yan

Degree: Ph.D.

Year: 2002

Corporate Source/Institution: Washington State University (0251)

Source: Volume 6403B of Dissertations Abstracts International.

PAGE 1125 . 73 PAGES

Effects of immunostimulatory DNA sequences on bovine immune responses

...cell proliferation at a lower concentration (10 μ M) when compared with CpG ODN containing AAGCTT or GACGTT motifs active for murine leukocytes. Furthermore, ODN 2059 induced IL-6 production by...

4/3,K/43 (Item 1 from file: 44) Links

Aquatic Science & Fisheries Abstracts

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0000866811 IP Accession No: 5341511

CpG oligodeoxynucleotides enhance the non-specific immune responses on carp, Cyprinus carpio

Book Title: 6th Asian Fisheries Forum Book of Abstracts

Malina, AC; Tassakka, AR; Sakai, Masahiro Faculty of Agriculture, Miyazaki University, Gakuen Kibanadai Nishi 1-1, Miyazaki 889-2192, Miyazaki, Japan, [mailto:m.sakai@cc.miyazaki-u.ac.jp]

p. p. 217 , 2001

Publication Date: 2001

Publisher: Asian Fisheries Society, Unit A, Mayaman Townhomes 25 Mayaman Street UP Village, Quezon City Philippines

Conference:

6. Asian Fisheries Forum, Kaohsiung (Taiwan), 25-30 Nov 2001

Document Type: Book Monograph; Conference

Record Type: Abstract

Language: English

ASFA No: CS0208566

File Segment: ASFA Marine Biotechnology Abstracts; ASFA 1: Biological Sciences & Living Resources; ASFA Aquaculture Abstracts

Abstract:

...ability to enhance the non-specific immune response in carp. The oligodeoxynucleotides containing the fish-immunostimulatory motif 5'-AACGTT-3' with the following sequences; ODN A = GCT AGA CGT TAA CGT T and ODN...

4/3,K/44 (Item 1 from file: 135) Links

NewsRx Weekly Reports

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0000878440 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Findings from University of Southampton advance knowledge in DNA research

Life Science Weekly, September 2, 2008, p.2811

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English

RECORD TYPE: FULLTEXT

Word Count:

490

TEXT: 8 SEP 2 - (& NewsRx.net) -- Research findings, 'The effects of local DNA sequence on the interaction of ligands with their preferred binding sites,' are discussed in a new...

Biochimie, "We have examined the effects of local DNA sequence on the interaction of distamycin, Hoechst 33258, echinomycin, actinomycin and mithramycin with their preferred binding sites using a series of DNA fragments that contain every symmetrical hexanucleotide sequence. In several instances we find that the affinity for the ligands' preferred binding sites is...

...yet shows no binding to TTCGAA, TGC GCA and AGCGCT, while the best binding is to AACGTT. The tetranucleotides CCGG and ACGT produce consistently good binding sites, irrespective of the surrounding sequences ...

...to all the potential symmetrical hexanucleotides and provide insights into the effects of local DNA sequence on ligand-DNA interactions." Hampshire and colleagues published their study in Biochimie (The effects of local DNA sequence on the interaction of ligands with their preferred binding sites. Biochimie, 2008;90(7):988...

...Medicales Elsevier, 23 Rue Linois, 75724 Paris, France. Keywords: United Kingdom, Southampton, DNA Research, DNA Sequence Proteomics, Deoxyribonucleic Acid. This article was prepared by Life Science Weekly editors from staff and...

DESCRIPTORS: United Kingdom; Southampton; DNA Research; DNA
Sequence Proteomics; Deoxyribonucleic Acid All
News; Professional News

4/3,K/45 (Item 1 from file: 185) Links

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Zoological Record Online(R)

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09019699 BIOSIS No. 14411065460

The expression profile of TLR9 mRNA and CpG ODNs immunostimulatory actions in the teleost gilthead seabream points to a major role of lymphocytes.

Authors: Cuesta, A. (a); Esteban, M.A.; Meseguer, J.

Authors Address: (a) Univ Murcia, Fac Biol, E-30100 Murcia; Spain

cuesta.alberto@inia.es

Source: CMLS Cellular and Molecular Life Sciences 65(13), July 2008: 2091-2104.

[Print]

Document Type: Article

ISSN: 1420-682X

Languages: English

Record Type: Abstract

The expression profile of TLR9 mRNA and CpG ODNs immunostimulatory actions in the teleost gilthead seabream points to a major role of lymphocytes.

Abstract: ...cell-source. To conclude, ODNs containing GACGTT, GTCGTT (optimal for mouse and human, respectively) or AACGTT motifs are the most potent inducers of seabream immunity, whilst the involvement of TLR9 is...

Descriptors:

...Immunostimulatory potential of oligodeoxynucleotides

4/3,K/46 (Item 1 from file: 357) Links

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0388765 DBA Accession No.: 2006-02261 PATENT

New immunostimulatory oligonucleotide of at least 8 nucleotides in length, useful in preparing a vaccine against infections caused by bacteria, parasites or virus, e.g. Hemophilus influenza or Mycobacterium tuberculosis immunostimulatory oligonucleotide for nucleic acid vaccine and infectious disease therapy and gene therapy

Author: KRIEG A M; KLINE J; KLINMAN D; STEINBERG A D

Patent Assignee: UNIV IOWA RES FOUND; COLEY PHARM GROUP INC; US DEPT HEALTH and HUMAN SERVICES 2005

Patent Number: US 20050277609 Patent Date: 20051215 WPI Accession No.: 2006-028460 (200603)

Priority Application Number: US 31460 Application Date: 20050107

National Application Number: US 31460 Application Date: 20050107

Language: English

New immunostimulatory oligonucleotide of at least 8 nucleotides in length, useful in preparing a vaccine against infections caused by bacteria, parasites or virus, e.g. Hemophilus influenza or Mycobacterium tuberculosis immunostimulatory oligonucleotide for nucleic acid vaccine and infectious disease therapy and gene therapy

Abstract: DERWENT ABSTRACT: NOVELTY - A new immunostimulatory oligonucleotide of at least 8 nucleotides in length comprises a sequence having 6 base pairs. DETAILED DESCRIPTION - A new immunostimulatory oligonucleotide of at least 8 nucleotides in length comprises a sequence consisting of AACGTC or GGCCTG. INDEPENDENT CLAIMS are also included for: (1) an immunostimulatory composition comprising the immunostimulatory oligonucleotide and an antigen, adjuvant or immunotherapy; (2)

modulating an immune response; (3) preventing an infectious disease; and (4) screening for human immunostimulatory activity of oligonucleotides. BIOTECHNOLOGY - Preferred Oligonucleotide: The immunostimulatory oligonucleotide includes more than one CpG motif. The immunostimulatory oligonucleotide of at least 8 nucleotides in length is represented by the formula (I) or (II)... is Tpt, Cpt or Gpt. X1, X2, X3 and X4 are nucleotides. Preferred Composition: The immunostimulatory composition comprises an immunostimulatory nucleic acid and an antigen. The immunostimulatory nucleic acid comprises 5'-cytosine, guanine-3'. The immunostimulatory nucleic acid and the antigen are proximately associated at a distance effective to enhance an immune response. The immunostimulatory nucleic acid comprises a palindromic region, comprising the sequence 5'-cytosine, guanine-3'. The immunostimulatory nucleic acid comprises 5'-purine, purine, cytosine, guanine, pyrimidine, pyrimidine-3'. The immunostimulatory nucleic acid comprises a sequence consisting of AACGTT, AGCGTT, GACGTT, GGCCTF, AACGTC, or AACGCT. The immunostimulatory nucleic acid and antigen are proximately associated by encapsulation within liposomes or by linkage to a delivery molecule. The immunostimulatory nucleic acid and antigen are proximately associated such that the immunostimulatory nucleic acid and the antigen are co-delivered to an immune target. The immune target... cell. The antigen-presenting cell is a dendritic or macrophage cell, or a lymphocyte. The immunostimulatory composition further comprises an adjuvant. Preferred Method: Modulating an immune response in a subject comprises administering the immunostimulatory oligonucleotide or immunostimulatory composition to a subject in an amount sufficient to modulate the immune response. The method... papillomavirus or human immunodeficiency virus. Preventing an infectious disease in a subject comprises administering the immunostimulatory composition. The infectious disease is due to a viral, bacterial or parasitic infection. The virus is Hemophilus influenza or Mycobacterium tuberculosis. Screening for human immunostimulatory activity of oligonucleotides comprises: (a) providing macrophage cells and an oligonucleotide to be tested; (b) incubating the cells and oligonucleotide of step (a) for an appropriate length of time; and (c) determining the relative amount... ACTIVITY - Antibacterial; Virucide; Antiparasitic. No biological data is given. MECHANISM OF ACTION - Vaccine. USE - The immunostimulatory oligonucleotide is useful in preparing a composition for preventing an infectious disease caused by bacteria, parasites... E.C. Numbers: Descriptors: immunostimulatory oligonucleotide, antigen, adjuvant, immunotherapy, immune response modulation, human immunostimulatory act. screening, appl. nucleic acid vaccine, parasite, virus, Hemophilus influenza, Mycobacterium tuberculosis infectious disease therapy, prevention, gene therapy animal mammal bacterium DNA sequence (25, 04)

4/3,K/47 (Item 2 from file: 357) Links

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0374956 DBA Accession No.: 2005-20662 PATENT

Treating viral infection in a subject comprises administering to a subject an immunostimulatory nucleic acid molecule comprising an unmethylated CpG dinucleotide, in an amount effective to treat or ameliorate a viral infection method of gene therapy of a virus infection involving the use of an unmethylated CpG dinucleotide encoded by a plasmid immunostimulant

Author: KRIEG A M; KLINMAN D; STEINBERG A D

Patent Assignee: UNIV IOWA RES FOUND; US DEPT HEALTH AND HUMAN SERVICES 2005

Patent Number: US 20050148537 Patent Date: 20050707 WPI Accession No.: 2005-478101 (200548)

Priority Application Number: US 987146 Application Date: 20041112

National Application Number: US 987146 Application Date: 20041112

Language: English

Treating viral infection in a subject comprises administering to a subject an immunostimulatory nucleic acid molecule comprising an unmethylated CpG dinucleotide, in an amount effective to treat or ameliorate a viral infection method of gene therapy of a virus infection involving the use of an unmethylated CpG dinucleotide

cpgaacggtt.txt

encoded by a plasmid immunostimulant

Abstract: DERWENT ABSTRACT: NOVELTY - Treating viral infection in a subject comprises administering to a subject an immunostimulatory nucleic acid molecule comprising an unmethylated CpG dinucleotide, in an amount effective to treat or ameliorate a viral infection, thus treating the infection in the subject. WIDER DISCLOSURE - Also disclosed includes an immunostimulatory nucleic acid molecule. BIOTECHNOLOGY - Preferred Method: In treating viral infection in a subject, the immunostimulatory nucleic acid molecule is an immunostimulatory oligodeoxyribonucleotide, purified bacterial DNA, a plasmid DNA including sufficient immunostimulatory motifs to be immunostimulatory, or a plasmid DNA which after being administered to the subject is degraded into oligonucleotides. The immunostimulatory nucleic acid molecule comprises a CpG motif composed of an unmethylated CpG flanked by two 5' purines and two 3' pyrimidines. The immunostimulatory nucleic acid molecule comprises a CpG motif in which the CpG is flanked by a 5' GpT dinucleotide and two 3' pyrimidines. The immunostimulatory nucleic acid molecule is 8-100 nucleotides long and comprises a CpG motif represented by... ..as GpT, GpG, GpA, TpT, CpT and GpT The immunomodulatory nucleic acid molecule comprises a sequence selected from: AACGCC; AACGCT; AACGTC; AACGTT; AGCGCC; AGCGCT; AGCGTC; AGCGTT; GACGCC; GACGCT; GACGTG; GACGTT; GGCGCC; GGCCTG; GGCCTG; GGCCTG; ATCGCC; ATCGCT; ATCGTC...

E.C. Numbers:

Descriptors: plasmid, unmethylated CpG dinucleotide, immunostimulant, appl., virus infection gene therapy virucide DNA sequence (24, 33)

4/3,K/48 (Item 3 from file: 357) Links

Derwent Biotech Res.

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0359372 DBA Accession No.: 2005-05076 PATENT

Use of an immunostimulatory oligonucleotide for boosting an immune response of a subject, or for stimulating an immune response in a subject, where increases in IFN-gamma and IL-12 expression are indicators of the immune response
immunostimulatory oligonucleotide and vaccine for use in disease therapy and gene therapy

Author: KRIEG A M; KLINMAN D; STEINBERG A D

Patent Assignee: UNIV IOWA RES FOUND; COLEY PHARM GROUP INC; US DEPT COMMERCE and NAT INST STANDARDS 2005

Patent Number: US 20050004062 Patent Date: 20050106 WPI Accession No.: 2005-065257 (200507)

Priority Application Number: US 847650 Application Date: 20040517

National Application Number: US 847650 Application Date: 20040517

Language: English

Use of an immunostimulatory oligonucleotide for boosting an immune response of a subject, or for stimulating an immune response in... ..where increases in IFN-gamma and IL-12 expression are indicators of the immune response immunostimulatory oligonucleotide and vaccine for use in disease therapy and gene therapy

Abstract: DERWENT ABSTRACT: NOVELTY - Using an immunostimulatory oligonucleotide for boosting an immune response of a subject or for stimulating an immune response in... ..Method: Boosting an immune response of a subject comprises administering to the subject an isolated immunostimulatory oligonucleotide comprising the hexameric sequence (I) X1X2CGX3X4, where C and G are unmethylated and X1-X4 are nucleotides, and the immunostimulatory oligonucleotide is 6-100 bases in length, and an increase in activation of the subject's... ..antigen receptors specific for the bacterial antigens. The immune system deficiency is also cancer. The immunostimulatory oligonucleotide is 8-100, preferably 8-40 bases in length. It is administered in conjunction with... ..IL-12 expression are indicators of the immune response comprises administering to the subject an isolated immunostimulatory oligonucleotide comprising (I), in an amount where IFN-gamma and IL-12 expression is increased. The immunostimulatory oligonucleotide includes a nucleotide sequence consisting of 5'-purine-purine-CG-pyrimidine-pyrimidine-3'. It also comprises AACGTT, GACGTC, or GACGCT. The infection is a viral infection. Boosting the immune responsiveness of a... ..a sensitizing antigen without immunization of the subject by the sensitizing

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antigen comprises administering an immunostimulatory oligonucleotide to the subject, where an increase in the magnitude of the subject's immune response... ..response of a subject to a sensitizing antigen toward a Th1 phenotype comprises administering an immunostimulatory oligonucleotide to the subject, where detection of a Th1 type immune response by the subject indicates... ..The desired result is measured by detecting in a sample containing lymphocytes obtained from the immunostimulatory oligonucleotide treated subject higher levels of IL-12 and/or IFN-gamma in the immunostimulatory oligonucleotide treated subject as compared to an antigen-challenged control. ACTIVITY - Antiinflammatory; dermatological; Immunosuppressive; Antibacterial; Virucide. No biological data given. MECHANISM OF ACTION - None given. USE - The immunostimulatory oligonucleotide is useful for boosting an immune response of a subject or stimulating an immune response...

E.C. Numbers:

Descriptors: immunostimulatory oligonucleotide, interferon-gamma, interleukin-12 expression increasing, vaccine, appl. immune response boosting, stimulation, systemic lupus erythematosus...

4/3,K/49 (Item 4 from file: 357) Links

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0359371 DBA Accession No.: 2005-05075 PATENT

Use of an immunostimulatory oligonucleotide for preventing or suppressing antigen-stimulated, eosinophilic inflammation in an antigen-exposed subject, or shifting the immune response of a subject to an antigen toward a Th1 immune response oligonucleotide and vaccine for use in disease therapy and gene therapy

Author: KRIEG A M; KLINE J; KLINMAN D; STEINBERG A D

Patent Assignee: UNIV IOWA RES FOUND; COLEY PHARM GROUP INC; US SEC OF ARMY 2005

Patent Number: US 20050004061 Patent Date: 20050106 WPI Accession No.: 2005-065256 (200507)

Priority Application Number: US 847642 Application Date: 20040517

National Application Number: US 847642 Application Date: 20040517

Language: English

Use of an immunostimulatory oligonucleotide for preventing or suppressing antigen-stimulated, eosinophilic inflammation in an antigen-exposed subject, or shifting the immune response of a subject to an antigen toward a Th1 immune response oligonucleotide and vaccine for use in disease therapy and gene therapy

Abstract: DERWENT ABSTRACT: NOVELTY - Using an immunostimulatory oligonucleotide for preventing or suppressing antigen-stimulated, eosinophilic inflammation in an antigen-exposed subject, boosting an... ..stimulated, eosinophilic inflammation in an antigen-exposed subject comprises administering to the subject an isolated immunostimulatory oligonucleotide comprising the sequence (I): XIX2CGX3X4, where C and G are unmethylated and X1-X4 are nucleotides, and the immunostimulatory oligonucleotide is 6-100 bases in length, in an amount to suppress a Th2 immune response, where eosinophilic inflammation is prevented or suppressed. The immunostimulatory oligonucleotide includes a nucleotide sequence consisting of 5'-purine-purine-CG-pyrimidine-pyrimidine-3'. Preferably, the nucleotide sequence consists of AACGTT. The immunostimulatory oligonucleotide also comprises a nucleotide sequence selected from GTCGTT, GTCGCT, GTCGGT, GGCGTT, GGCGCT, GCGCGT, GACGTT, GACGCT, GACGGT, AACGTF, AACGCT, or AACGGT... ..allergic rhinitis, eczema, hay fever, or urticaria. Preferably, eosinophilic inflammation is in the lung. The immunostimulatory oligonucleotide is 8-100, preferably 8-40 bases in length. Boosting an immune response of a subject comprises administering to the subject an isolated immunostimulatory oligonucleotide comprising (I), where an increase in activation of the subject's lymphocytes or NK cells... ..antigen receptors specific for the bacterial antigens. The immune system deficiency is also cancer. The immunostimulatory oligonucleotide is administered in conjunction with a vaccine. It may not also be administered in conjunction... ..to an antigen toward a Th1 immune response comprises administering to the subject an isolated immunostimulatory oligonucleotide comprising (I), where detection of a Th1 type immune response by the subject indicates that... ..The desired result is measured by detecting in a sample containing lymphocyte obtained from the immunostimulatory oligonucleotide treated

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subject, a lower level of IL-4 in the immunostimulatory oligonucleotide treated subject as compared to an antigen-challenged control, or a higher level of IL-12 and/or IFN-gamma in the immunostimulatory oligonucleotide treated subject as compared to an antigen-challenged control. Prevention or suppression of eosinophilic inflammation... ..by detecting lower levels of eosinophils in an inflammatory infiltrate in the lung in an immunostimulatory oligonucleotide treated subject as compared to an antigen-challenged control. Preventing or reducing antigen-stimulated, granulocyte-mediated inflammation in a tissue of an antigen-sensitized subject comprises administering an isolated immunostimulatory oligonucleotide to the subject, where a reduction in, or the absence of, a Th2 type immune... ..The desired result is measured by detecting in a sample containing lymphocytes obtained from the immunostimulatory oligonucleotide treated subject, a lower level of IL-4 in the immunostimulatory oligonucleotide treated subject as compared to an antigen-challenged control, or a higher level of IL-12 and/or IFN-gamma in the immunostimulatory oligonucleotide treated subject as compared to an antigen-challenged control. Boosting the immune responsiveness of a... ..sensitizing antigen without immunization of the subject by the sensitizing antigen comprises administering an isolated immunostimulatory oligonucleotide to the subject, where an increase in the magnitude of the subject's immune response... ..of a subject to a sensitizing antigen toward a Th1 phenotype comprises administering an isolated immunostimulatory oligonucleotide to the subject, where detection of a Th1 type immune response by the subject indicates... ..The desired result is measured by detecting in a sample containing lymphocytes obtained from the immunostimulatory oligonucleotide treated subject, a lower level of IL-4 in the immunostimulatory oligonucleotide treated subject as compared to an antigen-challenged control, or a higher level of IL-12 and/or IFN-gamma in the immunostimulatory oligonucleotide treated subject as compared to an antigen-challenged control. Reduction or suppression of inflammation is... ..Dermatological; Ophthalmological; Antiparasitic; Virucide. No biological data given. MECHANISM OF ACTION - None given. USE - The immunostimulatory oligonucleotide is useful for preventing or suppressing antigen-stimulated, eosinophilic inflammation in an antigen-exposed subject... ..E.C. Numbers: Descriptors: immunostimulatory oligonucleotide, Th1 immune response, vaccine, appl. antigen-stimulated, eosinophilic inflammation suppression, immune response shifting, immune response...

4/3,K/50 (Item 5 from file: 357) Links

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0356187 DBA Accession No.: 2005-01891 PATENT

Effecting an improved response to a vaccine to treat or prevent an immune system deficiency (e.g. cancer) comprises administering an amount of an immunostimulatory oligonucleotide before administering the vaccine to the subject an immunostimulant for use as an adjuvant for a vaccine against cancer, infection or atopic disease

Author: KRIEG A M; KLINE J; KLINMAN D; STEINBERG A D

Patent Assignee: UNIV IOWA RES FOUND; COLEY PHARM GROUP INC; US SEC OF ARMY 2004

Patent Number: US 20040229835 Patent Date: 20041118 WPI Accession No.: 2004-813305 (200480)

Priority Application Number: US 877407 Application Date: 20040624

National Application Number: US 877407 Application Date: 20040624

Language: English

...or prevent an immune system deficiency (e.g. cancer) comprises administering an amount of an immunostimulatory oligonucleotide before administering the vaccine to the subject an immunostimulant for use as an adjuvant for...

Abstract: ...an improved response to a vaccine comprises administering to a subject an amount of an immunostimulatory oligonucleotide before administering a vaccine to the subject to boost the subject's immune system and effect an improved response to the vaccine. DETAILED DESCRIPTION - The immunostimulatory oligonucleotide is 8-100 nucleotides long and comprises a mitogenic CpG motif 5' X1X2CGX3X4 3', where... ..The infectious organism is selected from viruses, infectious bacteria,

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mycobacteria, infectious fungi, and parasites. The immunostimulatory oligonucleotide is a DNA or RNA oligonucleotide comprising an unmethylated cytosine-guanine (CpG) dinucleotide. The CpG motif is AACGTT, AGCGTT, GACGTT, GCGGTT, GTCGTT, GTCGCT, GCGGCT, GACGCT, or AACGCT. The X1X2 are nucleotides selected from... GpA and ApA, and the X3X4 are nucleotides selected from Tpt, Cpt, and Gpt. The immunostimulatory oligonucleotide comprises a phosphorothioate or phosphorodithioate backbone modification. ACTIVITY - Immunostimulant; Cytostatic; Virucide; Fungicide; Antibacterial; Antiparasitic; Antiallergic... bacterial or parasitic infection), an atopic disease (including atopic dermatitis) or an allergy. ADMINISTRATION - The immunostimulatory oligonucleotide is administered via a systemic route, such as subcutaneous or intravenous (claimed). No dosage given...
E.C. Numbers:
Descriptors: ...infection, atopic dermatitis, allergy, prevention, gene therapy tumor cytostatic virucide antifungal antibacterial antiallergic dermatological DNA sequence (24, 03)

4/3,K/51 (Item 6 from file: 357) Links
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0339787 DBA Accession No.: 2004-12079 PATENT
New polypeptide, useful for identifying key amino acids in a TLR9 of a first species which confer specificity for CpG DNA optimized for TLR9 of the first species recombinant protein production via plasmid expression in host cell for use in amino acid identification

Author: LIPFORD G B; MOOKHERJEE N; BABIUK L; BROWNLIE R; GRIEBEL P; MUTWIRI G; HECKER R
Patent Assignee: COLEY PHARM GMBH; UNIV SASKATCHEWAN; QIAGEN GMBH 2004
Patent Number: WO 200426888 Patent Date: 20040401 WPI Accession No.: 2004-295374 (200427)
Priority Application Number: US 412479 Application Date: 20020919
National Application Number: WO 2003US29577 Application Date: 20030919
Language: English
Abstract: DERWENT ABSTRACT: NOVELTY - A new isolated polypeptide comprises a sequence having 821, 819, 820, 818, 1032, 1030, 1029, 1031 or 1029 amino acids. DETAILED DESCRIPTION... CLAIMS are also included for the following: (1) an isolated nucleic acid molecule comprising a sequence encoding the polypeptide; (2) a vector comprising the nucleic acid; (3) a cell comprising the... operatively linked to a promoter sensitive to NF-KB. The candidate TLR9 ligand is an immunostimulatory nucleic acid. The immunostimulatory nucleic acid is CpG DNA. The screening method to identify species-specific CpG-motif preference... isolated polypeptide comprises: (1) contacting an isolated polypeptide with a CpG DNA comprising a hexanier sequence consisting of GACGTT, AACGTT, CACGTT, TACGTT, GCGGTT, GCGGTT, GTCGTT, GATGTT, GAAGTT, GAGGTT, GACATT, GACCTT, GACTTT, GACGCT, GACGAT, GACGGT, GACGTC... to a promoter sensitive to NF-KB. The CpG DNA is an oligodeoxynucleotide having a sequence consisting of: (1) TCCATGACGTTTTTGTATGTT; (2) TCCATAACGTTTTTGTATGTT; (3) TCCATGACGTTTTTGTATGTT; (4) TCCATTACGTTTTTGTATGTT; (5) TCCATGGCGTTTTTGTATGTT; (6) TCCATGGCGTTTTTGTATGTT; (7)...
E.C. Numbers:
Descriptors: ...gene transfer expression in host cell, antibody, appl. amino acid identification, CpG DNA optimization DNA sequence protein sequence (23, 25)

4/3,K/52 (Item 7 from file: 357) Links
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0337898 DBA Accession No.: 2004-10190 PATENT
New host-vector system comprising a host chromosome, and a vector, useful as a vaccine for immunizing a poultry, preferably chicken, against coccidiosis for use vaccine and fowl immunization

Author: CURTISS R; KONG W

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Patent Assignee: UNIV WASHINGTON 2004

Patent Number: WO 200420643 Patent Date: 20040311 WPI Accession No.: 2004-239203 (200422)

Priority Application Number: US 407522 Application Date: 20020901

National Application Number: WO 2003US26883 Application Date: 20030829

Language: English

Abstract: ...DESCRIPTION - The host-vector system comprises: (a) a host chromosome comprising: (i) an activatable control sequence that is activatable by an inducer; (ii) a sequence that encodes a repressor, where the sequence is operably-linked to the activatable control sequence; and (iii) at least one essential gene that encodes a polypeptide that is necessary for... is inactivated; and (b) a vector comprising: (i) a eukaryotic expression cassette comprising eukaryotic promoter sequence; site for insertion of a gene encoding a desired gene product; and a polyadenylation sequence; (ii) a prokaryotic activator-promoter sequence; (iii) at least one origin of replication (ori); (iv) a regulatable prokaryotic promoter, which is... rigid layer of a cell wall of a prokaryote; (vi) at least one transcription terminator sequence; and (vii) at least one CpG sequence motif that enhances immunogenicity. INDEPENDENT CLAIMS are included for the following: (1) a microorganism comprising... from Eimeria, HBV, or Streptococcus pneumoniae. The eukaryotic promoter is CMV. The prokaryotic activator-promoter sequence is araC Pbad. The ori is pUC, pBR, p15A, pSC101, or pBAC. The regulatable control sequence is P22 Pr or Ptrc. The repressor is C2, Lac I, or both. The essential... has a mutation that changes an ATG start codon to GTG or TTG. The terminator sequence is rrfG. This system comprises at least three terminator sequences, or at least two essential genes. The CpG sequence motif is GTCGTT, GACGTT, GAGGTC, AACGTT or AGCGCT. The inducer is arabinose. The first and second inducers are arabinose. The host... E.C. Numbers:

4/3,K/53 (Item 8 from file: 357) Links

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0332441 DBA Accession No.: 2004-04733 PATENT

Detecting an epigenetic abnormality associated with a disease by identifying, within a eukaryotic genome, a locus having a hypomethylated sequence specific for the disease and an endogenous multi-copy DNA element for use in Huntington chorea, schizophrenia and bipolar disorder therapy

Author: PETRONIS A

Patent Assignee: CENT ADDICTION and MENTAL HEALTH 2003

Patent Number: WO 2003104487 Patent Date: 20031218 WPI Accession No.: 2004-062375 (200406)

Priority Application Number: US 386818 Application Date: 20020606

National Application Number: WO 2003CA820 Application Date: 20030606

Language: English

...associated with a disease by identifying, within a eukaryotic genome, a locus having a hypomethylated sequence specific for the disease and an endogenous multi-copy DNA element for use in Huntington...

Abstract: ...associated with a disease comprises identifying, within a eukaryotic genome, a locus having a hypomethylated sequence specific for the disease and an endogenous multi-copy DNA element. DETAILED DESCRIPTION - INDEPENDENT CLAIMS... chromosomal region associated with a disease state; (2) a method of identifying a DNA coding sequence having an epigenetically altered expression pattern that contributes to a disease in an organism; (3)... a disease, the step of identifying comprises separate steps of identifying the disease-specific hypomethylated sequence and identifying the endogenous multi-copy DNA element. The steps may be performed in any order. The disease-specific hypomethylated sequence and the endogenous multi-copy DNA element are within 10 kilobases of separation. The endogenous... comprises identifying a locus, within DNA obtained from the diseased sample, that has a DNA sequence that is hypomethylated and an endogenous multi-copy DNA element, where the DNA sequence is methylated in a non-disease sample and where the chromosomal region consists of from... 10 DNA coding sequences that are proximal to the identified locus. Identifying a DNA coding sequence having an epigenetically

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altered expression pattern that contributes to a disease in an organism comprises identifying a locus, within DNA obtained from the diseased sample, that has a DNA sequence that is hypomethylated and an endogenous multi-copy DNA element, the DNA sequence being methylated in a non-disease sample and comparing expression patterns of the DNA coding sequence that comprises, or that is located proximal to, the identified locus within the diseased sample and the non-diseased sample, to identify the DNA coding sequence having an epigenetically altered expression pattern. The disease comprises Huntington's disease, schizophrenia or bipolar disorder. Diagnosing an epigenetic abnormality correlated with a disease comprises identifying a DNA sequence that is hypomethylated within a locus that has an endogenous multi-copy DNA element and is obtained from a diseased sample, the DNA sequence being methylated in a non-disease sample. Detecting an epigenetic abnormality associated with a non... ..produce a PCR product; (e) cloning of the PCR product into a sequencing vector; (f) sequence determination of the PCR product to obtain a sequence of the PCR product; and (g) comparing the sequence against a genomic database to assign a locus for the epigenetic abnormality associated with a... ..DNA element is a multicopy DNA element. The multi-copy DNA element comprises endogenous retroviral sequence, LINE, SINE, L1 or Alu. The methylation-sensitive restriction enzyme comprises AatII (GACGTC); Bsh1236I (CGCG... ..Kpn2I (TCCGGA); MluI (ACGCGT); NotI (GCGGCCGC); NsiI (TGCGCA); PvuI (GCGCGC); PdiI (GCCGGC); Pfl23II (CGTACG); PspI406I (AACGTT); PvuI (CGATCG); SalI (GTCGAC); SmaI (CCCGGG); SnuI (CCCGC); TaiI (ACGT) or TspI (GCSGC). Identifying a... ..produce a PCR product; (e) cloning of the PCR product into a sequencing vector; (f) sequence determination of the PCR product to obtain a sequence of the PCR product; (g) comparing the sequence against a genomic database to assign a locus for the epigenetic abnormality associated with a... ..with an epigenetic abnormality comprises identifying, within a eukaryotic genome, a locus having a hypomethylated sequence specific for the disease and an endogenous multi-copy DNA element. Diagnosing a disease correlated with an epigenetic abnormality comprises identifying a DNA sequence that is hypomethylated within a locus that has an endogenous multi-copy DNA element and is obtained from a diseased sample, the DNA sequence being methylated in a non-disease sample. USE - The method is useful for detecting an...

E.C. Numbers:

Descriptors: DNA sequence, polymerase chain reaction, vector-mediated gene transfer, expression in host cell, appl. Huntington chorea, schizophrenia ...

4/3,K/54 (Item 9 from file: 357) Links

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0330149 DBA Accession No.: 2004-02441 PATENT

New nucleic acids, useful for inhibiting the synthesis of a target protein in a eukaryotic cell, or for treating various diseases by inhibiting the expression of abnormal or mutated proteins, e.g. leukemia, viral or bacterial infection target protein inhibition and viru vector expression in host cell for use in disease gene therapy

Author: SHI Y; SUI G

Patent Assignee: SHI Y; SUI G 2003

Patent Number: US 20030180756 Patent Date: 20030925 WPI Accession No.: 2003-852231 (200379)

Priority Application Number: US 301516 Application Date: 20021121

National Application Number: US 301516 Application Date: 20021121

Language: English

Abstract: ...NOVELTY - A new nucleic acid comprising in a 5'-3' order: an RNA polymerase promoter sequence; a first target sequence that is essentially complementary to a sequence of a target nucleic acid or its complement; a spacer sequence; a second target sequence that is essentially complementary to the first target sequence; and an RNA polymerase termination signal, where an RNA transcribed from the nucleic acid can... ..an RNA comprising the following nucleotide sequences in a 5'-3' order: a first target sequence of about 19-25 nucleotides, which is at least about 95% identical to a portion of a nucleotide sequence of a target nucleic acid or its complement, a spacer sequence of about 5-10 nucleotides, a second target

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sequence of about 19-25 nucleotides that is essentially complementary to the first target sequence, and at least a portion of an RNA polymerase termination signal, where the RNA inhibits expression of a target gene comprising a sequence that is essentially complementary to the first or the second target sequence; (2) a cell comprising the nucleic acid cited above; (3) a method for preparing a... ..signal comprises a number of thymidines sufficient for arresting Pol III activity. The first target sequence is at least about 95% identical to a nucleotide sequence of the target nucleic acid or its complement. The first target sequence is perfectly complementary to a sequence of a target nucleic acid or its complement. The target nucleic acid is a target... ..the second target sequences comprise about 15-30, preferably 19-25 nucleotides. The first target sequence comprises a portion of the coding sequence of the target nucleic acid or its complement. The first and the second target sequences... ..of thymidines sufficient for arresting Pol III activity is 4 or 5 thymidines. The spacer sequence consists of about 3-15 or 5-10, preferably 6 nucleotides. The spacer sequence comprises a palindromic sequence, which is AACGTT. The Pol III promoter comprises a U6 promoter. The Pol III promoter comprises from about nucleotide -315 to about nucleotide +1 of the mouse U6 promoter having a fully defined sequence of 316 bp given in the specification. The nucleic acid is DNA, and is in... ..In the nucleic acid cited above, the polymerase is a Pol III, the first target sequence is essentially complementary to a sequence of a target nucleic acid or its complement, the first and the second target sequences consist of about 19-23 nucleotides and are perfectly complementary to each other, the spacer sequence consists of about 6 nucleotides, and the RNA polymerase termination signal consists of 4 or... ..preferably comprises the following nucleotide sequences in a 5'-3' order: a Pol III promoter sequence, a first restriction enzyme recognition sequence, a spacer sequence, a second restriction enzyme recognition sequence, and a number of thymidines sufficient for arresting Pol III activity, where an RNA molecule... ..and second restriction enzyme recognition site, respectively, inhibits expression of a target gene comprising a sequence that is essentially complementary to the first or the second target sequence. The nucleic acid further comprises at least one additional restriction enzyme recognition sequence between the Pol III promoter and the first restriction enzyme recognition sequence, or between the second restriction enzyme recognition sequence and the thymidines sufficient for arresting Pol III activity. Preferred RNA: The RNA forms aof about 19-23 nucleotides and are perfectly complementary to each other, the first target sequence is perfectly complementary to a sequence of the target nucleic acid or its complement, and the polymerase termination signal consists of... ..cell comprises providing the nucleic acid cited above, and introducing into the first restriction recognition sequence a first oligonucleotide of about 15-30 nucleotides comprising a sequence that is essentially complementary to a sequence of the target nucleic acid. The method further comprises introducing into the second restriction recognition sequence a second oligonucleotide of about 15-30 nucleotides that is essentially complementary to the sequence of the first oligonucleotide. The first oligonucleotide comprises about 20-23 consecutive nucleotides of the target nucleic acid or its complement. The method further comprises introducing into the second restriction recognition sequence a second oligonucleotide comprising a nucleotide sequence that is perfectly complementary to the sequence of the first oligonucleotide. Producing RNA molecules that inhibit expression of a target nucleic acid in a eukaryotic cell comprises introducing into a eukaryotic cell the nucleic acid above, where the first target sequence is essentially complementary to a sequence of the target nucleic acid or its complement, such that the nucleic acid is transcribed... ..and produces RNA molecules that inhibit expression of a target nucleic acid. The first target sequence is perfectly complementary to a sequence of the target nucleic acid and the first and the second target sequences consist of... ..cell comprises introducing into a target cell the nucleic acid above, where the first target sequence is essentially or perfectly complementary to a sequence of the nucleic acid encoding the target protein or its complement, such that the nucleic... ..introducing into the cell of the subject the nucleic acid above, where the first target sequence is essentially or perfectly complementary to a sequence of the gene encoding the target protein or its complement, such that the nucleic acid... ..Pol III)-specific RNA transcript. The resulting RNA was composed of two identical 21-nucleotide sequence motifs in an inverted orientation separated by a 6-bp spacer of non-homologous

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sequences...

E.C. Numbers:

Descriptors: RNA-polymerase promoter sequence, termination signal, target protein inhibition, adeno virus vector-mediated gene transfer expression in eukaryotic host... ..disease, amyotrophic lateral sclerosis therapy, gene therapy cytostatic hemostatic virucide neuroprotective nootropic antiparkinsonian tumor protein sequence DNA sequence (23, 05)

? d s

Set	Items	Description
S1	256	S AACGTT
S2	32	S S1 AND (LIP?)
S3	238	S S1 AND (OLIGONUCLEOTIDE OR ANTISENSE OR SEQUENCE OR DINUCLEOTIDE OR IMMUNOSTIMULATORY)
S4	56	RD (unique items)